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The Past Work of the Obstetrical Society of London and some of the Obstetrical and Gynæcological Problems Still Awaiting Solution.*

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To preside over such a Society as the Obstetrical and Gynæcological Section of the Royal Society of Medicine is the greatest honour to which one of its members may attain; I fully appreciate this honour and am grateful to the Council for their unanimous nomination, and to the Members of the Section for electing me to such high office. Whilst fully realizing my own limitations, I hope to retire from the Presidency feeling that in doing my best I have in the opinion of the Section worthily upheld the dignity and importance of the Chair, and my task will be less difficult if the members of the Section will extend to me the kindness and the consideration which I have always experienced whilst holding other offices in the Obstetrical Society of London.

Fortunately we have distinguished Secretaries, experienced in the work of the Section, and with their assistance, and the cordial co-operation of individual members of the Section, we can look forward to an interesting and I hope a useful Session.

It is known to many of those present that in view of seniority, and of excellent work done for the Obstetrical Society, Dr. John Phillips would have been proposed for the post of President, but he felt reluctantly compelled to ask not to be nominated, fearing that his midwifery engagements might prevent his keeping the fixed appointments required of the President.

Fortunately for the Section Dr. Phillips has consented again to serve on our Council as Editor and to be our Representative on the Editorial Committee of the Royal Society of Medicine, so that his

* Inaugural Presidential Address to Obstetric Section of Royal Society of Medicine, October 5, 1911.

continued interest and great experience in the work of the Section is still at our disposal.

When nearly 30 years ago I was elected to the Fellowship of the Obstetrical Society of London the most impossible thought that could have occurred to me would have been that I could ever come to occupy the Presidential Chair then held by (the late) Dr. Matthews Duncan.

The Council in that and the succeeding years, 1882 and 1883, contained such honoured names as Arthur Farre, Henry Oldham, Robert Barnes, John Hall Davis, Baptiste Potter, Graily Hewitt, Braxton Hicks, William Priestley, Edward John Tilt, Spencer Wells, Charles J. Cullingworth (then of Manchester), W. S. Playfair, Henry Bennet, J. H. Aveling, Gustavus Murray, George Roper, Knowsley Thornton and my father C. H. F. Routh. All these obstetricians have passed away, but their works live after them and we as their successors continue to hold them in high esteem.

Fortunately some on the 1882-3 Council still live and are equally held in our affection and estimation—John Williams, Henry Gervis, Alban Doran, Clement Godson, Edward Malins of Birmingham and William Stephenson of Aberdeen; with George E. Herman and A. L. Galabin, then the Hon. Secretaries, and Francis Champneys, then Hon. Librarian. I am sure that those of that small band who are with us to-night will agree with me in saying that the members of our present Amalgamated Section are as well fitted as their predecessors to maintain the prestige and good work previously done by the older Societies.

Indeed I doubt if at any time in our history we have had such enthusiastic workers in both the pathological and clinical aspects of our specialities as we have had during the last few years.

May I here encourage more of our younger members to come forward and relate their experiences in discussions, and in original communications. No one could feel the difficulty of speaking more than I did, and I see that I made no attempt to speak for three years. Nervous members who have something to say will find their listeners not only attentive, but considerate and sympathetic if at their first attempt their nervousness is obvious.

I say this because I know there are young members of this Section who have so far hesitated to come forward. We want, nay we need their help. This Section in its present amalgamated state is singularly free from jealousies and personal prejudices, and its members work in good fellowship and harmony, recognising and encouraging merit wherever found, and helping each other in their efforts to discover the truth and to bury the false and the equivocal.

The Obstetrical Society was founded at an Inaugural Meeting at the Freemasons' Tavern on December 16th, 1858, nearly 53 years ago.

No member of the original Council and only two of the Society's original Fellows, Henry Walter Kiallmark and David Lloyd Roberts, survive.

The former, though in poor health, is still keen for all that concerns his profession, and the latter who performed his first Cæsarean Section in 1867 was able to record a successful one only three years ago (Dec. 30th, 1908)—after 40 years hard operative work. May our salutations go to these two grand veterans of Science!

I may refer to three important movements which, during the last ten years, have proved very advantageous to our interests. One was the formation on the initiative of Dr. Walter Griffith in 1901 of a Standing Pathological Committee to which specimens of doubtful or interesting pathology are referred by the President. The Chairmanship of the Committee was held by Mr. Alban Doran till 1904 and since then by Dr. Walter Griffith, and these gentlemen with a Committee of able and keen pathologists have done excellent work for the Section and for science.

Another most important event in the history of the Obstetrical Society was the decision made in February 1902 to admit ladies as Fellows. We were the first important Society to do this, and the results have abundantly justified the innovation.

One of the most serious losses which our Section has sustained has been the death of Mrs. Florence Nightingale Boyd, who was elected a Fellow in April 1902, and showed her first specimen, "Fibroma of the Ovary," in the following month. Since that date till her death in June 1910, her communications and occasional interventions in debate, given with marked fluency and succinctness, have invariably made us gainers in scientific knowledge. Mrs. Scharlieb, one of our Vice-Presidents, and Mrs. Vaughan Sawyer are on our Council, and valuable contributions to our Section have been made by these and other ladies.

The third event was the happy amalgamation of the Obstetrical Society of London and the British Gynæcological Society in 1907, and the formation of the Royal Society of Medicine, with the Amalgamated Societies as one of the Sections.

The Past Work of the Obstetrical Society of London.

Since the inauguration of the Obstetrical Society in 1858 it has been concerned with the advance of obstetric and gynæcological medicine in two main directions: 1st By exercising a socio-political influence; 2nd By its more normal scientific work.

As regards its Socio-political work its greatest success has been the persistent agitation which it has successfully employed in favour of improved obstetric teaching both of students and midwives, and

has thus been able as a direct result to help to lessen the terrible infantile death rate and maternal puerperal mortality which then obtained. This has been done (1) by stimulating the teaching and examining bodies to insist upon the better education of medical students in obstetrics; (2) by constantly urging the government of the day to educate and register widwives; (3) by actually providing for the education and examination of midwives till Government itself took the matter in hand. Many of our younger members hardly realize how great an influence the Obstetrical Society has had in the improvement in Obstetric Training.

I propose therefore for a few minutes to give a short review of this part of the work of the Obstetrical Society.

Defective Obstetric Training.

In 1860 (vol. ii, p. 3) Dr. Edward Rigby, the first President, stated that the Council had presented a most important memorial to the General Medical Council urging upon them the imperative importance of improving obstetric education.

At the London University, students had then only to attend six labours, and attendance at lectures on midwifery was not compulsory.

At the Royal College of Physicians of London there was no examination in midwifery, no obstetric expert being on the Examining Board. At the Royal College of Surgeons of England candidates had to attend three months' lectures on midwifery but need not have personally attended any confinements.

The Obstetrical Society demanded that the standard of education and examination on midwifery should be as high as that which obtained in Medicine and Surgery.

The immediate result of this memorial was that in the following year the Royal College of Physicians arranged to examine and grant a license in medicine and midwifery, and attendance on a course of midwifery and on clinical diseases of women was made compulsory.

Another result was the institution of a new office in our educational hospitals, namely, that of "Obstetric Physician," whose duties were at first entirely those of an accoucheur, surgery being practically excluded.

In 1863 the President, Dr. Tyler Smith, urged that obstetric physicians should be allowed to perform the operation of ovariotomy —till then mainly in the hands of surgeons. The struggle made by obstetric physicians to practise abdominal surgery was an uphill fight and led to much ill-feeling between them and their surgical colleagues, and added point to the prejudice which their appointments had in many cases created. It was indeed many years before obstetric physicians were treated with the respect they deserved. In 1879 we find the President of the Society, Dr. Playfair, deploring this, and alluding especially to the fact that in such a representative

body as the General Medical Council there was no representative of obstetrics.

One of the most forcible inaugural addresses was given by Matthews Duncan when our President in 1881. He alluded especially to the efforts of Dr. Playfair in England and of Dr. MacNaughton Jones in Ireland, and he particularly eulogised the latter, our immediate Past-President, who he said was known "for his enthusiastic advocacy of the claims of improved obstetric teaching in our medical curriculum," and Dr. Matthews Duncan added, with, I think, a marvellous prevision, "that without an extension of the curriculum to five years, he thought that such improvement was impracticable."

As the first step to progress being made he again urged that an obstetric physician should be placed on the General Medical Council, and he stated that the Council of the Obstetrical Society had again memorialised the Government on the subject.

We may congratulate ourselves that very soon after that deputation, the Government (April 20, 1883) realized the necessity of acceding to our Council's request, and that the first representative on the General Medical Council should have been so able an obstetrician and so expert an educationalist as Matthews Duncan himself. In 1901 Sir John Williams was appointed Crown representative, and on his retirement this year Sir Francis Champneys was appointed by the Crown.

As a result of obstetric experts being now on the General Medical Council and on all Examining Boards, great improvement has taken place in the teaching of clinical midwifery especially as regards the attendance of the medical student in lying-in wards.

This course was strongly advocated by Dr. Dakin in his Presidential address in 1905. He advised that students should do their clinical midwifery at a Lying-in Hospital, and be taught there by a recognised and expert teacher who should devote all his time to the work, as is now done in Germany, where two half-year courses are required of the student, and the student has personally to deliver four women in the presence of the teacher or his assistant.

Dr. Dakin's address was given at the psychological moment, for it more or less voiced the opinion of everyone concerned, and the teaching of practical midwifery has now been put on a sounder basis. When all the Teaching Hospitals can either have their own lying-in wards with efficient Resident Teachers, or can utilize adjacent adequately staffed lying-in hospitals, all students will get efficient training. The advantage, however, to the student, in view of his future practice, of attending out-door maternity cases after he has acquired the knowledge of aseptic midwifery in lying-in wards, is also obvious, and should not be allowed to be entirely superseded.

Infantile Mortality.

In 1869 the Obstetrical Society created a standing Committee on "Infant Mortality" which investigated the subject, and the results were issued in a Report in 1870.

The subject of "Children's Diseases" was then part of the regular work of the Society, and one of England's greatest experts in that speciality, Dr. Charles West, was actually the President in 1877. Since then the subject of "Children's Diseases," has wisely been given over to other Sections of the Royal Society of Medicine, but our Section should still consider itself bound to do what it can to lessen the number of abortions and still-births, and to reduce the mortality of the new-born child at all events so long as the infant is under our care as accoucheurs.

Much has been done by Sir Francis Champneys and others to save the lives of children born asphyxiated, and Dr. Herbert Spencer has demonstrated that many still-born or newly-born children die from cerebral and other hæmorrhages. Papers too have been read on gynæcological troubles in young children by Dr. Drummond Robinson on "Vulvar Discharges in Infants"; by Dr. Stephenson, on "Ophthalmia Neonatorum"; and on "Grape-like Sarcoma" by Drs. Curtis and Williamson. We have, however, mainly concerned ourselves with fœtal monstrosities, hermaphroditism, and other developmental abnormalities rather than with the causes, pathology and treatment of the child in its ante-natal and newborn stages. We know very little more of the causes of intra-uterine death of the fœtus than we did when Sir W. Priestley, a past President of the Obstetrical Society, read his Lumleian Lectures on that subject in 1887 at the Royal College of Physicians.

Mortality both *in utero* and soon after birth is still far larger than it should be. Dr. Priestley calculated that in 1887 in London alone 9,000 *abortions* occurred annually due to preventible causes. There is no reason to think that abortions are now less numerous or relatively less preventible than they were.

The number of *still-births* could then only be guessed at, but we can now, thanks to the Registrar General's statistics, estimate their frequency with fair accuracy.

In 1910, 2,312 still-births were notified in London, representing 2·2 per cent. of the total births. If this proportion holds good for the whole of England and Wales, the still-births in 1910 were 19,736. Our knowledge of practical midwifery tells us that many of these still-births occur during delivery, and are preventible.

At that date, 1887, the infantile death rate in England and Wales during the first year of life was 145 per 1000 births. In 1909, the rate had been reduced to 109 per 1000 births, and to 106 in 1910, a saving of 39 infants per 1000 births. As there were 914,472 births

in England and Wales in 1909 this reduction in the infantile death rate means a saving of the lives of 33,922 children in that year, as compared with the children who would have survived their first year if the rate of mortality had been the same as in 1887. (See Dia. A.).

The infantile death rate is still, however, enormous, for in 1909 in England and Wales out of 518,003 deaths, 99,430, or 19 per cent., were those of infants under one year of age.

In London the infantile death rate per 1000 births was 158 in 1887 and 108 in 1909, a saving of 50 lives in 1000 births, representing a saving of 5,939 infant lives in the Metropolis out of the 118,078 births. In 1910 the infantile death rate had diminished in London to 103 per 1000 births.

In order to emphasize the special import of this mortality to our Section I append a Table in which it is shown by the Registrar General that out of 99,430 infants who died during their first year in England and Wales in 1909, 24,686 infants, about one-fourth, died during the first three months of life from causes connected with birth.

TABLE I.

Infantile deaths in England and Wales in 1909 *during the first three months of life from causes connected with birth.*

	Males	Females	Total
Premature Births	10108	7899	18007
Congenital Hydrocephalus ...	41	31	72
Other Congenital Defects ...	2072	1661	3733
Injury at Birth	564	390	954
Atelectasis	874	631	1505
Want of Breast Milk	248	167	415
Total	13907	10779	24686

Another cause connected with birth of both infantile death and local inflammatory processes in new-born infants is "obstetrical infection" at birth. Such infection must be distinguished from congenital infection of the infant, conveyed through the mother, such as syphilis, smallpox, measles, malaria, etc.

"Obstetrical infection" of the infant due for instance to the liquor amnii being infected before birth, in some cases even when the amniotic sac is intact, is as definite an infection as the ophthalmia of vaginal gonococcal origin. It is not yet well recognised in this country that such infection may be the cause of serious sepsis of the mouth or nose, which by penetration into the lungs or alimentary canal may cause bronchitis or broncho-pneumonia, vomiting, gastro-intestinal disturbances, jaundice, etc.

The following Table (Table II.) taken from the Statistics of the Registrar General for 1909 shows that out of 109 infants per 1000 births who die in their first year *from all causes*, 11 die in the first 24 hours of life, 30 children die in the first fortnight and about 40 in the first month.

The accoucheur is responsible for the new-born child during at all events the *first fortnight of life*, and in that period *nearly one-third of those children who do not survive their first year, lose their lives.*

TABLE II.

Infantile deaths to 1000 *deaths at different ages from all causes in* 1909 *in England and Wales.*

Die during the 1st 24 hours.....	11·5 per 1000
Die during the next six days.....	13·1 „ „
Die during the second week.....	5·7 „ „
Die during the first fortnight.....	30·3 „ „
Die during the first month.....	39·75 „ „
Die during the first year of life.....	108·73 „ „

Can we not as the Obstetric Section of this great Society do something more to lessen this infantile mortality by encouraging the education of women in the rational management of themselves and their children during the puerperium.

What more natural than that the Royal Society of Medicine, the leading Medical Society of our land, through its Obstetric Section, associated perhaps with the Section for Diseases of Children, should draw up a simple set of rules for the guidance of mothers and nurses, so that the work of all the various agencies now engaged in instructing women in infantile hygiene may be facilitated by a small authoritative hand-book which could be used by all agencies.

All that would have to be done would be a revision of the excellent rules for the "General Management of Infants" drawn up by the Council of the Obstetrical Society in 1873 (after the Report of the Standing Committee on "Infantile Mortality," see Trans. Obst. Soc., vol. xii, p. 398).

The rules proved useful then when they were the outcome of the Society's almost isolated effort. Now such authoritative rules would be widely welcomed, for the whole country is striving to save the lives of its infants—now alas! born in such relatively small numbers. I propose to take the opinion of our Council upon this point.

Much is now being done both in the Metropolis and in the provinces by voluntary nursing and visiting organizations, especially in connection with the work of the Central Midwives' Board, often indeed with the keen approval, or even at the initiation, of the Local Supervising Authorities under the Act.

As showing what can be done by definite special effort to encourage lactation and discourage artificial feeding of infants, I may quote results in St. Pancras and Stepney.

In St. Pancras, Dr. Sykes and the Municipal Health Authorities began their educational experiment in 1904 when the infantile death rate was 151 per 1000 births. Last year it was 107 per 1000. In Stepney under similar circumstances it dropped from 138 to 109 per 1000 births.

Unfortunately a concrete example shows the converse of this progress. We have recently had a combination of drought and railway strikes which shows in a most graphic way how infants who are not breast-fed die wholesale if cow's milk be deteriorated by bacteria-dust, or if, owing to milk from the suburbs failing to be delivered in the large cities, infants have to be fed on other articles of diet. (See Table III.)

TABLE III.

Deaths of Children under one year to 1000 *Births in London and Liverpool* (1911).

London.				Liverpool.			
Week ending	Births	Deaths under 1 yr. of age	To 1,000 Births	Week ending	Births	Deaths under 1 yr. of age	To 1,000 Births
July 8	2223	159	72	July 8	426	62	146
„ 15	2242	150	67	„ 15	448	54	121
„ 22	2175	173	80	„ 22	464	73	157
„ 29	2133	305	143	„ 29	383	75	196
Aug. 5	2295	461	201	Aug. 5	411	107	260
„ 12	1880	636	338	„ 12	399	144	361
„ 19	2311	705	305	„ 19	371	165	445
„ 26	2223	712	320	„ 26	465	146	314
Sept. 2	2200	622	283	Sept. 2	461	141	306
„ 9	2104	555	264	„ 9	438	133	304
„ 16	1997	442	221	„ 16	381	107	281

The Table shows that in London in the week ending July 15, 1911, the deaths of infants under one year of age was 150, 67 per 1000 births; in the weeks ending August 12 and 19, when the great heat and the railway strike were in action, the infantile deaths rose to 636 and 705, or 338 and 305 per 1000 births. In Liverpool where the railway strike was more general and the absence of milk, or its

deterioration from delay, was more universal, the infantile deaths on the same dates rose from 54 to 144 and 165, and the death rate per 1000 births from 121 to 361 and 445.

I suppose no one will dispute the fact that if these infants had been breast-fed, this terrible mortality would not have occurred.

I quote one of the rules drawn up by the Obstetrical Society in 1873 which would be particularly useful in these days, when mothers so often avoid the duty of lactation for selfish reasons, or prolong the function hoping to postpone another pregnancy; the rule says:—

"Nature provides breast milk as the proper food for an infant, and suckling is by far the best way of feeding it."

"Provided the mother has plenty of milk and is in good health, an infant requires and should have no other food but the breast milk until about the sixth month."

What a blessing to the new-born would ensue if advisory legislation or custom could make such a practice the rule rather than the exception.

Cannot the united voice of this Section as well as the advice of its individual members do something to stem the tide of non-lactation which must act to the physical disadvantage of both mother and child, and which at the same time tends to annihilate the mental, moral and social ties which should bind mother and child together at the beginning of an infant's life.

I append a Table (IV.) and a Diagram (A) showing the steady fall in the infantile death rate in England and Wales during the last 30 years.

TABLE IV.

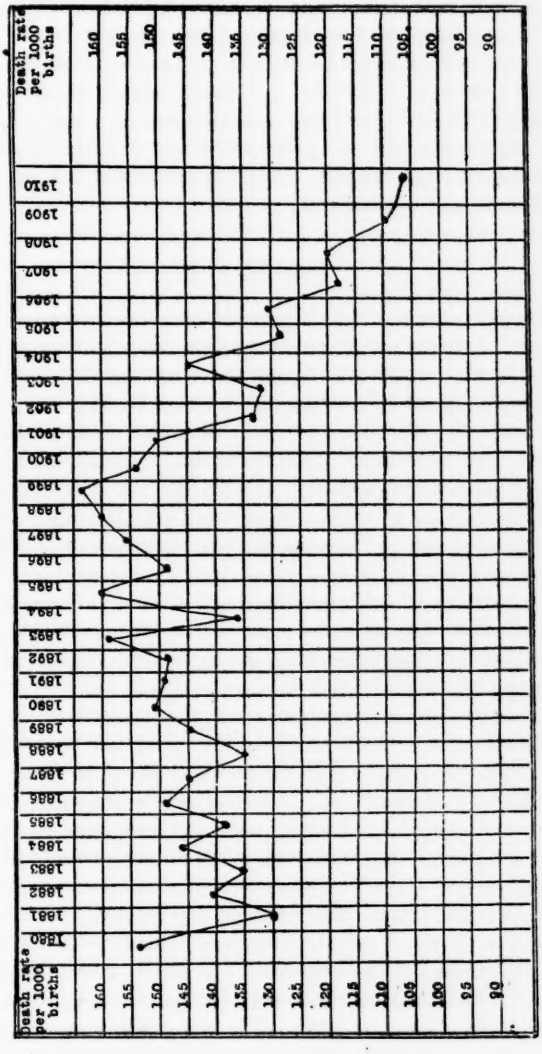
ENGLAND AND WALES.

Deaths of Children under one year to 1000 *births*—1880—1910.

Year.	Rate.	Year.	Rate.
1880	153	1895	161
1881	130	1896	148
1882	141	1897	156
1883	137	1898	160
1884	147	1899	163
1885	138	1900	154
1886	149	1901	151
1887	145	1902	133
1888	136	1903	132
1889	144	1904	145
1890	151	1905	128
1891	149	1906	132
1892	148	1907	118
1893	159	1908	120
1894	137	1909	109
—	—	1910	106

DIAGRAM A.

Deaths of infants under one year of age to 1000 births in England and Wales.



It will be observed that the infantile death rate between 1880 and 1900 averaged about 145 per 1000 births, and actually got worse and worse till it reached 163 per 1000 in 1899.

Since then it has steadily improved, and last year (1910) it was only 106 per 1000, a saving of life as compared with 1899 of 57 infants out of every 1000 born.

This represents a saving of the lives of 52,026 infants under one year of age in England and Wales in 1910 as compared with those who would have died in 1899. I believe this result to be largely due to the compulsory education of midwives which the examinations by the Obstetrical Society of London first, and since 1905 by the Central Midwives' Board have necessitated, for about 21,000 midwives have been examined and passed by these two bodies, and it must be remembered that, roughly speaking, midwives are in attendance at about half the total births.

Puerperal Fever.

The prevention of "Puerperal Fever" has been a burning question since the foundation of the Obstetrical Society, and in 1872 a strong Standing Committee was appointed "for the Collection of Observations on temperature during Pregnancy, Parturition and the Puerperal State." By this and various other methods the Obstetrical Society has constantly and consistently endeavoured to save the lives of parturient women, not only by its scientific work, but by endeavouring to get the importance of the Science and Art of Midwifery recognised by medical opinion and by Government and the country generally.

The history of midwives in England and the part played by the Obstetrical Society of London in getting them educated, certificated and registered was admirably given by Sir Francis Champneys in his Inaugural Presidential Address in 1896. This address was given at a moment of some tension when the Council of the Society and the Examiners of the Society's self-constituted Board of Examiners were being threatened by the General Medical Council, and even the word "infamous," in of course the professional and technical sense, was being hinted at by some of those opposed to the scheme. What a comment can to-day be made on such a state of affairs when the nation has at last taken over the education and examination of midwives, and when Sir Francis Champneys, who has been the Chairman of the Central Midwives Board from its formation, is now the Crown Representative on the General Medical Council itself! The Midwives Bill became law in 1902, and its work of examination began in 1905. The thankless work, therefore, of the fourteen years (1858 to 1872) before the Obstetrical Society was able to start its examination Board (in 1872) together with another 33 years' hard work of actual examination which then followed, has been abundantly justified. Of the 10,022 midwives who had passed the Obstetrical Society's examinations, 7,465 elected to be put on the Roll of Midwives.

We can now see that a definite improvement has within the last few years taken place in the death rate due to septicæmia. Un-

doubtedly the modern conduct of maternity cases in lying-in institutions has led not only to an enormous diminution of the mortality and morbidity due to sepsis in those institutions, but their success has shown what can be done also in general practice. In 1865—1875 the British Lying-in Hospital had a death rate of 19·4 per 1000 births, City of London Lying-in Hospital 14·3 per 1000, and Queen Charlotte's Hospital 22·3 per 1000. In the Rotunda Dublin the death rate between 1811 and 1875 varied from 13·1 to 32·7 per 1000. The mortality was, however, not always so great, for in some decades even a hundred years ago the death rate in Lying-in Hospitals was remarkably low from unexplained causes; thus in the British Lying-in Hospital between 1790 and 1800 the death rate in 6,677 deliveries was only 3·2 per 1000, and at the same date the mortality at the City of London Lying-in Hospital was only 5·7 per 1000. Explanations of these good years in puerperal fever statistics are difficult, but the invariable rapid return of bad years prior to the routine use of antiseptics, showed that when septicæmia once developed in a lying-in hospital, none of the methods then in use served to check its spread, and as a rule the lying-in hospital had for a time to be entirely closed and redecorated. As late as 1889 Dr. Galabin in his inaugural address as President, when speaking of antiseptics in midwifery, said, "The hope may now be entertained that modern antiseptic methods will suffice to render healthy even a lying-in ward in a general hospital, though it is premature to speak positively on the subject until the experiment has been tried." The experiment has now been tried and has proved completely successful, and lying-in wards in our London and Provincial Hospitals give us no anxiety.

The question as to how far antiseptic and aseptic midwifery has reduced puerperal mortality and morbidity in general practice is more difficult to decide.

Dr. Galabin gave the mortality of childbirth between 1847 and 1885 as 4·82 per 1000 births, and 4·45 between 1875 and 1885, more than half of these deaths being due to puerperal fever. For those who wish to study the growth of our knowledge as regards the nature of puerperal septicæmia, I would advise them to read the epoch-making discussion in the Obstetrical Society's Transactions on "The Relation of Puerperal Fever to the Infective Diseases and Pyæmia," opened by Spencer Wells in 1875; and they should also read Dr. Watt Black's masterly resumé of our knowledge in 1891. The progress made in our knowledge in those 16 years was enormous.

The abolishment of puerperal septicæcia is slow in arriving, much slower than was anticipated by those who witnessed under their own eyes the disappearance of sepsis in lying-in hospitals when corrosive sublimate douches were first used.

Dr. Cullingworth showed in his Inaugural Address that the death rate of puerperal septicæmia in 1896 was not falling but actually

rising. The death rate in England and Wales from accident and septicæmia in the five years ending 1895 was 5·4 per 1000 births, from septicæmia alone 2·5 per 1000.

Dr. Dakin in his Inaugural Address in 1905 was able to show some improvement, the deaths in 1903 from accidents and sepsis being 4·06 per 1000 births, those from sepsis being 1·75, but even in that year alone (1903) if all the labours had been aseptic, 1,668 women, omitting deaths due to accidents of labour, would not have been sacrificed to sepsis.

Both Dr. Cullingworth and Dr. Dakin considered that the cause of the persistent high death rate was due partly to the ignorance of midwives, but partly also to the fact that there were still some medical men in 1897 and 1905 who though well aware of the importance of asepsis and antisepsis in surgery, failed to consider asepsis seriously in midwifery practice. Since Dr. Cullingworth spoke in 1897 there have been 15,900 medical men registered in the United Kingdom, and since Dr. Dakin spoke in 1905 5,760 medical men have been put on the Register, all of whom have been educated in strict antiseptic or aseptic midwifery, and as the total number of medical practitioners in the United Kingdom is now 40,483, many of whom have retired from practice or do not practise midwifery, it is evident that the large majority of practising accoucheurs must have been trained in modern methods.

Similar encouragement comes to us when we consider the question of trained midwives. The Secretary of the Central Midwives Board tells me that the total number of trained women put on the Roll of Midwives in 1905 was 9,787, together with 12,521 untrained women. Since then 10,412 have passed the C.M.B. examination, and allowing for deaths and removals, etc., it is computed that there are on the Roll 20,065 trained and 11,614 untrained women, and each year the proportion is of course increasing in favour of the trained women. It is computed that out of the 20,000 trained women now on the Roll of Midwives only about 5,000 are practising as midwives, the rest being monthly nurses, or only obtained the certificate as a qualification for a post. On the other hand there are probably over 10,000 untrained women still practising as midwives, and as tending to show the relative value and reliability of the two classes, it is interesting to note that only 17 of the 5,000 trained women practising as midwives have been struck off the Register, about 3·4 per 1000, as compared with 275 struck off from the 10,000 untrained midwives, or 27·5 per 1000. In other words the chances of being struck off the Roll for incompetency or malpractice are about eight times as great in the case of an untrained woman.

When all qualified medical practitioners and midwives practising midwifery have been trained in modern midwifery methods sepsis should be banished.

Sir Francis Champneys* in a discussion at this Section last year stated that the death rate from "*Puerperal Sepsis*" and "*accidents of childbirth*" to 1000 births was conclusive in showing recent improvement, for whereas this rate prior to 1902 was never below 4·39 per 1000 births, it fell to 3·83 in 1907, and I am able to add the still better data for 1908 and 1909, viz., 3·57 and 3·70.

For the first time for many years in the history of this Society its President is therefore able to testify to a very definite and steady and I hope permanent reduction in the death rate for puerperal septic diseases. (See Table V. and Diagrams B and C.)

TABLE V.

Table showing in respect of years 1890 to 1910 inclusive the number of deaths in England and Wales from Puerperal Septic Diseases and Accidents of Childbirth, with the Annual Death Rate per million females living, and per 1000 births.

Years	Number of Births	Deaths from Puerperal Sepsis (See Note 1)			Deaths from Accidents of Childbirth (See Note 2)			Rate of Deaths from Puerperal Sepsis *and* Accidents of Childbirth per 1,000 Births (Notes 1 and 2)
		Numbers	Rate per million living females	Rate per 1,000 Births	Numbers	Rate per million females living	Rate per 1,000 Births	
1890	869,937	2016	136	2·32	2239	151	2·57	4·89
1891	914,157	2069	138	2·26	2718	181	2·97	5·24
1892	897,957	2439	160	2·72	2755	181	3·07	5·78
1893	914,572	3094	202	3·38	2856	184	3·12	6·51
1894	890,289	2257	145	2·54	2518	162	2·83	5·36
1895	922,291	1927	123	2·09	2292	145	2·49	4·57
1896	915,331	2123	133	2·32	2438	152	2·66	4·98
1897	921,683	1898	118	2·06	2352	147	2·55	4·61
1898	923,165	1767	109	1·91	2307	142	2·50	4·41
1899	928,646	1973	120	2·12	2353	143	2·53	4·66
1900	927,062	2017	121	2·18	2438	146	2·63	4·81
1901	929,807	2079	122	2·24	2315	136	2·49	4·73
1902	940,509	2003	118	2·13	2202	129	2·34	4·47
1903	948,271	1668	97	1·76	2189	127	2·31	4·07
1904	945,389	1654	94	1·75	2013	116	2·13	3·88
1905	929,293	1734	98	1·87	2171	123	2·34	4·20
1906	935,081	1640	93	1·75	2117	120	2·26	4·02
1907	918,043	1465	81	1·60	2055	115	2·24	3·83
1908	940,383	1395	76	1·48	1966	108	2·09	3·57
1909	914,472	1429	77	1·56	1950	106	2·13	3·70
1910	897,100	—	—	—	—	—	—	—

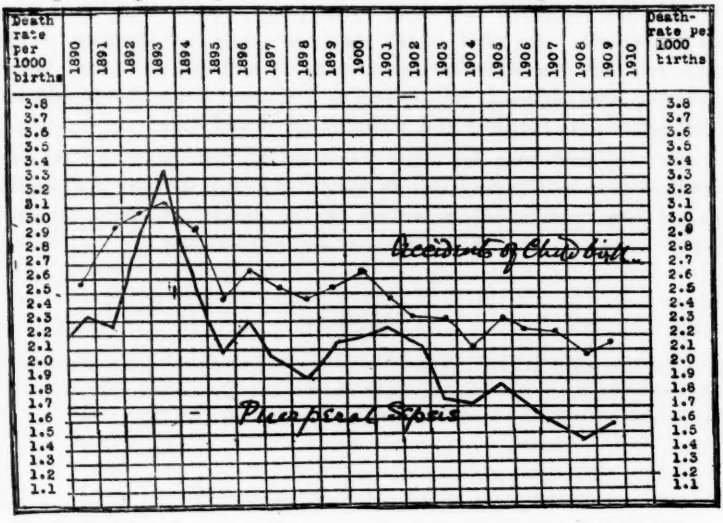
Note 1.—"Puerperal sepsis" includes puerperal septicæmia, puerperal septic intoxication, puerperal pyæmia, phlegmasia alba dolens, and puerperal fever not otherwise defined.

Note 2.—"Accidents of childbirth" includes abortion, miscarriage, puerperal convulsions, placenta prævia, flooding, and "other accidents of pregnancy and childbirth."

* "Trans. Roy. Soc. Med.," Obstet. Section, vol. iii, 1910, p. 232.

DIAGRAM B.

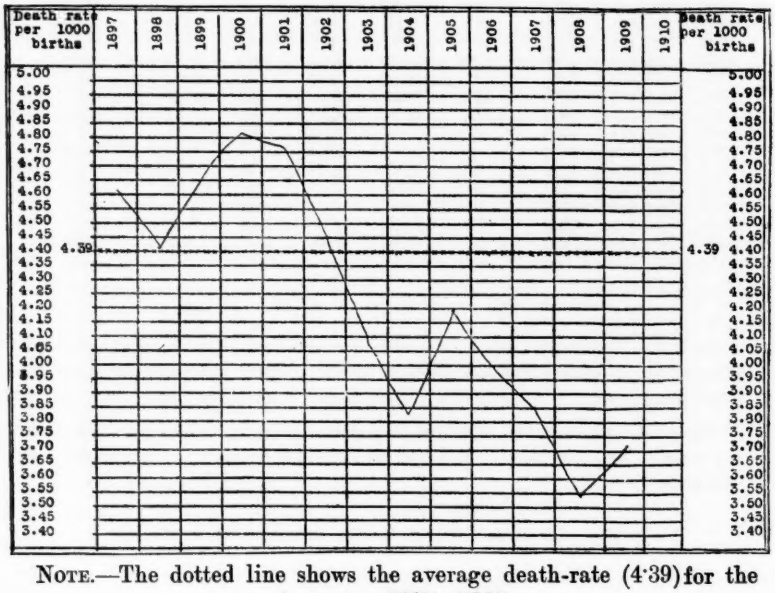
Death rates from puerperal sepsis and from accidents of child-birth respectively in England and Wales 1890 *to* 1910 *per* 1000 *births.*



Thin line indicates death-rate from accidents of child-birth. Thick line death-rate from Puerperal Sepsis.

DIAGRAM C.

Death-rates in England and Wales from puerperal sepsis and accidents of child-birth for the years 1897 *to* 1910 *inclusive; to* 1000 *births.*



NOTE.—The dotted line shows the average death-rate (4·39) for the ten years 1897—1906.

In Table V. and Diagram B and C, it will be seen that not only is the proportion of deaths in England and Wales from "puerperal septic diseases" becoming reduced in comparison with the deaths due to other "accidents of childbirth," but that the actual death rate from puerperal septicæmia is steadily becoming reduced, whilst curiously and suggestively the death rate from other "accidents of child-birth" is stationary or only slightly diminishing. Does this mean that operative midwifery, and measures taken to avert sepsis have not tended to lessen deaths due to other "accidents of child-birth?" It is only right that we should consider this possibility though time does not now permit me to do so, for it would not be to the credit of the profession if it succeeded in its effort to annihilate sepsis, only to add to the maternal risks in other directions by anything like unnecessary interference with the natural process of parturition. In London, deaths from "accidents of child-birth" show a much greater relative decline than in England and Wales. (Table VI.)

TABLE VI.

Puerperal Fever in the administrative County of London showing cases of "Puerperal Fever" notified in London, together with deaths from "Puerperal Septic Diseases" and from "accidents of child-birth" between 1900 *and* 1910.

Years	Notified Cases of Puerperal Fever		Death from Puerperal Septic Disease		Deaths from Accident of Childbirth	
1900	—		 169		 230	
1901	—		 184		 219	
1902	—		 200		 210	
1903	—		 170	935	 197	962
1904	—		 198		 159	
1905	—		 183		 177	
1906	298		 187		 170	
1907	254		 152		 188	
1908	228	1359	 137	798	 182	842
1909	287		 170		 166	
1910	292		 152		 136	
1911 (six months)	145		..... —		..... —	

NOTE.—If the deaths from Puerperal Septic Disease during the five years 1906—1910 had all been notified, they would represent a death rate of 58·7 per cent. of cases notified. Table VIII shows the notifications and deaths in London during first six months of 1911.

Members of the Section will agree with me that Diagrams B and C are on the whole very satisfactory evidence of success achieved.

Notification of Cases of Puerperal Septicaemia.

Complete or reliable information as regards the number of cases of puerperal septicæmia in England and Wales has been very difficult to obtain till now, as notification has not been enforced.

In future there will be no such difficulty, for a General Order was issued by the Local Government Board on 13th December, 1910, requiring *every* M.O.H. to send in weekly returns of notified infectious diseases including puerperal fever. Returns are accordingly now received every week from the majority of the *1,800* sanitary districts in England and Wales.

Table VII gives the notifications of puerperal fever for England and Wales during the first six months after the general order of last December, and shows that during that period there were 1,013 cases notified.

The notifications in the Administrative County of London have been obtained since 1906 and are given in Tables VI and VIII.

TABLE VII.

Notifications of Puerperal Fever in England and Wales.

January to July, 1911.

Week ending	Number of Cases	Week ending	Number of Cases
January 7	43	April 1	39
„ 14	38	„ 8	38
„ 21	41	„ 15	38
„ 28	50	„ 22	39
		29	44
February 4	35	May 6	47
„ 11	35	„ 13	34
„ 18	52	„ 20	30
„ 25	54	„ 27	37
March 4	39	June 3	24
„ 11	45	„ 10	22
„ 18	45	„ 17	25
„ 25	40	„ 24	36
		July 1	43
		Total (26 weeks)	1013

TABLE VIII.

Puerperal Fever in London.

January to July, 1911.

Number of cases notified and number of deaths in each succeeding week.

Week ended Saturday	No of Cases Notified	Number of Deaths in the following week			
		All ages	20—25	25—35	35—45
January 1	5	1	—	1	—
„ 7	8	5	1	1	3
„ 14	6	2	1	—	1
„ 21	4	5	2	2	1
„ 28	4	5	—	5	—
February 4	2	2	—	2	—
„ 11	6	2	—	1	1
„ 18	2	2	—	2	—
„ 25	11	3	—	2	1
March 4	7	—	—	—	—
„ 11	4	4	—	4	—
„ 18	8	2	—	1	1
„ 25	4	1	—	1	—
April 1	4	3	—	—	3
„ 8	8	1	—	1	—
„ 15	10	3	1	2	—
„ 22	6	2	—	2	—
„ 29	8	4	3	1	—
May 6	7	2	1	1	—
„ 13	4	5	2	2	1
„ 20	6	—	—	—	—
„ 27	9	5	—	2	3
June 3	3	2	—	1	1
„ 10	3	—	—	—	—
„ 17	3	4	1	1	2
„ 24	3	3	—	3	—
	145	68	12	38	18

Total for half year:—

145 cases notified in period 24th December 1910—24th June, 1911:—

68 deaths in period 1st January, 1911—1st July, 1911.

=a death rate of 46·9 per cent. of cases notified.

Note.—The above figures relate to notifications and deaths of Puerperal Fever in the Administrative County of London. The estimated population in the middle of 1911 is 4,522,628. The annual rate per 1000 persons living of the cases *notified* in London is 0·06 (as compared with 0·07 in 212 Provincial Towns).

Table VIII shows that the notifications for the first six months of this year (1911) in London have been 145, and the deaths notified during the same period were 68, a percentage mortality of the cases notified of 46·9 which is less than the apparent percentage mortality shown in footnote to Table VI. Probably, however, in the earlier notification years all cases were not notified before death.

Other Medico-Political Suggestions.

Other Medico-Political Suggestions have been made from time to time by Presidents of the Obstetrical Society.

I will only mention two.

Dr. Matthews Duncan in 1881 (vol. xxiii, p. 75) urged that women about to be married should receive legislative protection from syphilis,—that in fact it should be criminal for a man to marry who had a recent or active syphilis. He also wished it to be considered criminal for a woman who had syphilitic sores on her pudenda to fail to warn her accoucheur of the circumstance. He instanced an accoucheur who only survived 18 months after attendance upon such a case.

Dr. Herbert Spencer in 1907 (vol. xlix, p. 129) suggested that in order to ensure cases of uterine cancer coming earlier under treatment two definite steps should be taken:—

1. To diffuse the knowledge of the symptoms of the disease among women as has been done with good results in Germany.

2. To urge upon general practitioners that it is a neglect of duty to treat hæmorrhage or discharge which may be due to uterine cancer without making or advising a local examination.

To emphasize the importance of such a step I may state that in the years 1901—1909, 152,737 women over 25 years of age died from cancer, and of these 35,516 died from cancer of the uterus. This represents 23·2 per cent. of the total deaths from cancer, and Dr. Eden in his "Manual of Gynæcology" says that 96 per cent. of these are cervical cancer, 4 per cent. cancer of the body of the uterus.

On the whole I think it might be a wise thing if our Section, or the Royal Society of Medicine, had a standing Socio-Political or Parliamentary Committee which could take up various subjects and influence the Government or other bodies when opportunity offers or occasion requires.

I think I have shown that the Obstetrical Society of London has, during its short career of 53 years, been of use to the community by its Medico-Political influence. If our Section had had such a Standing Committee we might even in the last few months have pressed upon the Government better conditions for the doctor and the patient in the Maternity Clauses of the National Insurance Bill which is still under discussion, and so have strengthened the hands of the General Medical Council, Royal College of Physicians and

other bodies working to improve the condition of parturient women of the poorer classes.

The Future of Obstetrics and Gynaecology.

I. *Obstetrics.*

I am becoming more and more convinced that we shall get very little further in our knowledge of the physiology of menstruation, labour and lactation, and of the causation of the toxic diseases of pregnancy and the puerperium, unless we call into our aid not only the bacteriologist but also the physiological chemist.

Physiological chemistry is an extremely difficult science and none but experts can tackle it. Those interested in the subject should read Dr. A. E. Garrod's paper on "Where Chemistry and Medicine Meet."[1] So difficult is it that it seems to me that until we have Chairs and laboratories specially instituted for the study of these branches of biological chemistry in our Teaching Schools we shall get very little beyond our present scanty and clouded knowledge, not only of the cyclical occurrence of the functions named, but also of the toxæmias of pregnancy and the puerperium.

The question as to how this additional chemical branch of pathological research is to be provided is likely to prove difficult. Inasmuch as it is required for the correct diagnosis and efficient treatment of the patients in hospital, it is not only rational, but just that the hospital, rather than the medical school, should finance the matter, both from the point of view of salary for the expert chemist at the head of the department, and of money required for its equipment and upkeep.

Menstruation. At the very beginning of our study of obstetrics and gynæcology the subject of menstruation has necessarily to be considered. We know very little either of the causation, or of the significance or utility of menstruation.

Heape[2] has proved that the pro-œstrum stage of the "rut" in animals is homologous with menstruation and that ovulation is not the controlling factor, and as a result the nerve and ovulation theories as to its cause are now largely surrendered in favour of the theory that its cyclical occurrence is due to a recurring bio-chemical change in the blood.

One of the elements in this change appears to be an excess of the salts of calcium, a fact put forward in our Section by Dr. Blair Bell,[3] who considers that the uterus of woman is homologous with the calcium chamber of birds, and that the calcium metabolism is

1. "Brit. Med. Journ.," June 17, 1911, p. 1418.

2. "The sexual season of Animals, etc." "Quarterly Journ. Microscop. Soc.," 1909, vol. xliv.

3. "Proc. Roy. Soc. Med.," Obstet. Sect., vol. i, p. 291 .

largely influenced by the internal secretion of the ovary and of the other ductless glands.[1]

Thus enlargement of the thyroid gland as in Graves' disease and cretinism tends to amenorrhœa or diminished menstrual loss; atrophy of the thyroid gland as in myxœdema tends to increased menstrual loss; and growth of the pituitary gland as in acromegaly tends to amenorrhœa.

The whole subject is still obscure and awaits solution at the hands of physiological chemists.

Labour and Lactation. Both labour and lactation can occur without spinal nerve influence, as I showed in a case of traumatic paraplegia.[2] What is the chemical substance which is thrown into the blood stream by uterine or placental metabolism at or soon after parturition, and which causes the mammary glands to secrete milk and the liver to secrete glucose to supply that milk with sugar? Is this chemical substance identical with that which starts the onset of labour?

Lutein Tissue. What for instance is the influence exerted by lutein tissue? Dr. Cuthbert Lockyer[3] has done much to answer this question in our Society's Transactions from the clinical and pathological standpoint. What is its action upon the health of the individual? What is the influence which its excess or diminution has upon the dates and occurrences of such functions as menstruation, ovulation, fertilization and implantation of the ovum, labour and lactation? Does it influence the onset of the menopause?

Is lutein tissue one of the essential bio-chemical products, one at all events of the ovarian internal secretions, which by getting into the blood exerts a controlling or exciting functional influence until recently unsuspected? (See Hydatidiform Degeneration of Chorion, p. 176).

We know nothing of the chemical constitution of the toxines producing hyperemesis gravidarum, albuminuria, eclampsia, the diabetes of pregnancy apart from ordinary glycosuria, the chorea of pregnancy, acute yellow atrophy of the liver, and puerperal insanity. Are these toxins produced from the ovarian or the placental metabolism? What can be the explanation that injection of a solution of iodide of potassium into the mammary glands, or amputation of both breasts, as performed by Sellheim, can cure eclampsia?[4] It seems a brutal operation, yet is it possible that there is a theoretical justification for it and that the internal secretion of the mammary glands is liable to change and become toxic and cause eclampsia?

1. Goodall and Conn, "Surg., Gynæc., and Obst.," vol. xii, p. 5.
2. "Trans. Obstet. Soc.," London, vol. xxxix, p. 191.
3. "Trans. Obst. Soc.," London, 1905, vol. xlvii, p. 157.
4. "Brit. Med. Journ.," June 17, 1911, 1444.

With reference to this possibility, Dr. Herbert Spencer has drawn my attention to a puerperal disease in cows attended with coma, successfully treated by mammary injections of which he had been informed by his brother, Trevor Spencer, M.R.C.V.S., of Kettering, to whom I am indebted for the following note:—

> With regard to the Udder treatment for "Drop," or "parturient Apoplexy" as we call it, not very much is known of the pathology of the disease, but it is apparently due to a toxin formed in the Udder at the time of calving, especially in deep milkers, and occurs most often at the third or subsequent calving; it is never seen at the first birth and very rarely at the second.
>
> Shortly after calving, from a few hours to three days, the cow begins to "paddle" with the hind feet, and has a wild excited countenance; the animal then staggers, and in attempting to move falls headlong. Paralysis and coma soon appear, the breathing becomes stertorous, the animal assumes a characteristic attitude by turning her nose to her flank, and occasionally throws her head about violently in delirium; the symptoms being all those of intense brain congestion.
>
> Some years ago before the Udder treatment was adopted, the disease, in most localities was regarded as quite incurable, and in some parts slaughter houses were erected by the neighbouring farmers, and to these the affected cows were conveyed and slaughtered for food without any treatment being undertaken. At this time I met with a good deal of success by the use of large repeated doses of chloral hydrates and bromide of potassium. I used to give from 8 to 12 drachms of each of these drugs every three hours for six or eight doses. About 35 to 40 per cent. recovered with this treatment.
>
> I then began the Udder treatment as suggested by Schmidt of injecting a solution of iodide of potassium into the breast with air injection afterwards, this sometimes led to mastitis, so that I now inject into each quarter of the udder half a pint of a warm solution of chinosol of the strength of 30 grains to a quart; the udder is then massaged for a few minutes, and then blown up tightly with oxygen and again massaged, the gas and solution being left in for some hours. The cow is on her feet and perfectly well in from four to twelve hours, and no other treatment of any kind is required; 98 per cent. recovering from the disease. There is no special virtue in the chinosol, or in the oxygen either, any mild antiseptic and air pumped in acts equally well. I use oxygen rather than air because one is not so likely to get septic trouble afterwards. I have found that when I used only the oxygen the cow got up just as quickly as when an antiseptic was also used but a relapse often occurred and the treatment had to be repeated. I have seen about 1000 cases of this disease, which is not nearly so common now as formerly. Only 3 or 4 of these cases occurred during pregnancy. It is unaccompanied with pyrexia or with convulsions; cows thus affected, not infrequently have similar attacks in subsequent confinements.

Puerperal Fever. We know absolutely nothing of any reliable specific means of treating puerperal fever, although we are supposed to know the various specific germs which produce it. Yet how is it that polyvalent serum prepared from streptococci obtained from many cases of puerperal septicæmia is so very seldom successful, and indeed serum therapy seems only really successful, even when a streptococcal infection seems certain, in cases where pus has already

formed in the pelvic cellular or perimetric tissue and to some extent therefore localised the infection. As I suggested in my Cæsarean Section Monograph[1] can no way be found by which the infecting germ can be discovered at the onset of infection by differential staining, etc., without waiting for a culture diagnosis? Can no more rapid way than is now possible be then found by which a serum or a vaccine can be made from the patient's own brand of streptococcus or other germ thus found and so save her life? Or is there some other fact of which we are now ignorant to explain our failure to cure these septic cases by a specific antitoxin?

One such fact may be that though streptococci, etc., are usually found in the genital discharges in cases of acute puerperal septicæmia, they are much more rarely found in the patient's blood, even 5 or 6 days after infection. This points to severe general toxæmia of local origin, rather than to a true general infection, and may explain the failure of serum therapy. I believe that most cases of puerperal septicæmia are for some days only cases of local infection of the uterus and its veins. For this reason I personally rely with much greater confidence upon early exploration and clearing out of the uterus and swabbing with strong iodine solution and giving large doses of liquor ferri perchlor., to increase the general resistance, rather than upon any attempt to combat the infection itself. Vaccine therapy has also been advocated but no definite results have followed its use in puerperal cases, except perhaps in a few subacute or chronic cases.

The failure of bacteriological treatment in puerperal septicæmia [2] is all the more disappointing when we see how similar treatment answers for allied conditions. For instance we know the good results of vaccine therapy in cases of chronic gonorrhœal cystitis, endometritis, and salpingitis; and I have seen two cases where vaccine, prepared from the patient's own gonococci, was used during subsequent attacks of acute salpingitis, the attack in each case subsiding at once, contrary to the opinion generally held.

After careful work Dr. Lea of Manchester read a paper at this Section,[3] and is of opinion that organisms indistinguishable from pyogenic streptococci together with diplococci and bacterium coli are not infrequently present in the vagina of pregnant women.

The fact is, however, that we are not yet quite sure of the significance of the germs thus found in the vagina at the onset of labour whether we believe in Döderlein's theory or not. If we were really sure that the streptococci, staphylococci, bacillus coli, etc., present

1. "Journ. of Obstet. and Gyn. Brit. Empire," vol. xix, 1911, pp. 1—233; and "Proc. Roy. Soc. Med.," Obstetric Section, vol. iv, 1911, p. 197.

2. See "Lancet," Aug. 19, 1911, p. 531.

3. "Proc. Roy. Soc. Med.," Obstetric Section, vol. ii, p. 129.

in the vagina of a healthy woman during labour were liable to infect the woman, it would be our duty to disinfect and sterilize the vagina in every case before labour precisely as we do before vaginal operations.

Experience appears to show that this is not necessary, and it seems more than probable that the patient is immune from the germs which are habitually present in her vagina, immune in this case apparently by means of Döderlein's bacillus, and that she only becomes infected when germs are introduced from without, germs for which there is not in her own system an anti-body to resist.

A man bitten by the teeth of a cat or dog may get a fatal sepsis, yet that cat or dog can freely and advantageously lick its own wounds.

It is known that the serum obtained from a pregnant woman has different qualities from that of other women, but very little is known of the actual and essential differences except as regards the effect upon animals of inoculations of the serum. Physiological chemists have not yet discovered the chemical constitution or molecular structure of the substances concerned. It is said to be possible to diagnose the existence of pregnancy by a serum test founded upon the power of the serum to hinder the action of proteolytic ferments such as trypsine.[1]

It is further shown by Krause and Graff[2] of Vienna, that during the first eight months of pregnancy placental serum has a remarkable power of destroying cancer cells, and of resisting cancer invasion by manufacturing an anti-cancerous substance. Is this a partial explanation of the rarity of the combination of cancer and pregnancy, and perhaps a partial explanation of the improvement which pregnancy usually exerts upon the spread of tuberculosis, and the almost inevitable downward progress due to the disease after labour.

In this connection I may allude to the fact that the presence of pregnancy prevents perfect reliance being placed upon blood-tests in some cases. Thus, according to Stern[3] local tuberculin reactions are distinctly diminished during pregnancy. In healthy non-pregnant women 65 per cent. gave positive reaction to the cutaneous and 14·5 per cent. to the conjunctival tuberculin test, whereas in the 7th, 8th and 9th months of pregnancy the cutaneous reaction diminished to 36, 30 and 28 per cent. respectively, and the conjunctival reaction results were consistently negative.

There is reason to believe that pregnant women[4] have some sort of immunity from scarlatina, and puerperal women a special liability

1. "Lancet," June 3, 1911, p. 1526.
2. "Med. Press and Circular," Aug. 15, 1911, p. 166 .
3. "Zeitschr. f. Sch. und Gyn.," Band lxvi, Heft 3.
4. Blacker, G. F., M.D., "Practice of Midwifery," 1910, p. 1001.

to it. Olshausen[1] could only find instances of 7 cases of scarlatina during pregnancy, as compared with 134 within one week after delivery. Boxall,[2] in a paper read in this Section, did not think that this was due to a delayed period of incubation.

Good work has been done in this Section on the physiological action of the placenta by Drs. Dixon and Frank Taylor,[3] but very much more remains to be done.

I wish to allude to a few instances showing our ignorance as regards the origin of common diseases, for it is mainly the etiology of obstetric diseases which is now puzzling us.

Hydatidiform Degeneration of the Chorion. What for instance is the cause of cystic degeneration of chorionic villi? We believe it is of fœtal rather than maternal etiology, but mainly because it may occur in one of twins, the other placenta being normal. What else do we know about its causation?

The frequent association of lutein cysts with this condition, and the established fact that destruction of the corpus luteum in rabbits prevents implantation of the ovum by preventing the development of the trophoblast, has led to the belief that this excess of lutein tissue may be the cause. Perhaps, as Dr. Blacker suggests, there may be a common cause both of the proliferation of the chorionic epithelium and of the lutein cells.

What explanation again have we of the development of chorion-epithelioma?[4] Is there a benign and a malignant hydatidiform degeneration of the chorion? Can they be differentiated? What is there in chorion-epithelioma different to other malignant growths, which in some cases enables a timely hysterectomy to cure the patient even when metastatic growths have developed in the lungs? Is there a benign and a malignant chorionepithelioma as has been suggested?

Ectopic Gestation. Are we any more sure of the causes of tubal gestation than we were before Lawson Tait suggested a previous chronic salpingitis?

Phlegmasia Alba Dolens. What again is the pathology of true phlegmasia dolens (the lymphangitis type)? Is it an infection or a secondary toxæmia? Its sudden, fairly punctual onset, its course and duration, seem to point to a specific microbic origin.

Pyelo-nephritis of Pregnancy. What is the true explanation of the pyelitis of pregnancy known to be due to bacillus coli infection? and why is the right kidney almost always primarily attacked? Explanations are plentiful, fanciful and often mutually destructive.

1. Puerperal Scarlatina, "Obstet. Journ.," vol. iv.
2. "Trans. Obstet. Soc., Lond.," 1888, vol. xxx, pp. 11 and 126.
3. "Proc. Roy. Soc. Med.," Obstet. Section, vol. i, p. 11.
4. See Frank, "Amer. Journ. of Obstet.," Sept., 1911.

II. *Gynæcology.*

Inflamed appendages. Turning now to gynæcology I would like an authoritative paper from one of our seniors as to when a pyosalpinx or a matted tube and ovary, the result of salpingitis, should be operated upon, and when left alone or otherwise treated. Personally I believe that such cases should very rarely be dealt with by abdominal section, and practically never during the acute stage when the pus in the tubes is virulently infective.

Fibrosis of Uterus. What do we know of the pathology of so-called fibrosis of the uterus? There is no doubt it exists, though till lately it was unsuspected.

The best account of fibrosis which I have read is in Dr. Eden's "Manual of Gynæcology," but are the microscopical changes described by him infective, inflammatory or degenerative? In such cases, with our present knowledge, hæmorrhage becomes almost intractable. Can nothing but hysterectomy stop the bleeding? What would be the effect of exposure to *x*-rays?

Menorrhagia of Puberty. What is the explanation of the menorrhagia of puberty, which is sometimes so severe and intractable as to bring young girls almost to death's door? Is it a uterine or a constitutional disease? There is no direct evidence that it is due to a blood abnormality, yet the best remedy in my experience is prolonged treatment with lactate of calcium.

"*Fungous Endometritis.*" I would like this Section or the Obstetric Section of the International Medical Congress meeting in 1913, to decide that the word "endometritis" should cease to be used for adenomatous overgrowths of the uterine mucosa. Everyone agrees that it is an obsolete and erroneous expression, yet its use is continued, often with the prefix "so-called," or it is put in inverted commas to show its erroneous ambiguity.

The main difficulty is to find a word which will cover all the benign varieties of adenomatous overgrowth which would be included, just as the word "adenoids" covers different types of adenomatous growth in the naso-pharynx of children. In this connection I may mention that I have very frequently found that women from whose uteri I have scraped unusual quantities of adenomatous tissue suffered from adenoids as children.

Vascular Caruncle. What is the cause of vascular caruncle of the urethra? And why is it so prone to recur? How is it that no nerve tissue has been demonstrated in their structure, when they are such painful growths?

Fibromyomata. Dr. Clay of Manchester,[1] a Fellow of the Obstetrical Society of London, read at one of its meetings in 1863 an account of two abdominal hysterectomies for fibroids with intra-

1. "Trans. Obst. Soc., Lond.," vol. v, p. 58.

peritoneal treatment of the stump done in 1844 and 1863, the first performed in this country, one case recovering. A study of the Transactions of our Amalgamated Societies shows the steady progress which has been made, until at the present time mortality after hysterectomy for fibroids is almost non-existent unless the operation has been too long delayed, or unless constitutional or local complications are present.

I am, however, entirely opposed to the view that a fibroid which is producing no symptoms should be removed for fear of symptoms or degenerations which may or may not subsequently develop. That is not conservative surgery, and unless the patient is going to the tropics, where fibroids always get larger and where menorrhagia is sure to occur or unless other special circumstances are present, I do not operate till symptoms arise. I have on at least two occasions postponed surgical interference on patients who subsequently became pregnant and were delivered of healthy children. We are still ignorant of the causation of these fibromyomata.

In his Inaugural Address in 1887 Dr. John Williams,[1] as he then was, suggested that just as antiseptics in midwifery at that date had given obstetricians the power to prevent chronic disease and suffering in women, so perhaps in 40 years time some President of the Obstetrical Society would be able to announce that a means of preventing the growth of ovarian cysts, uterine fibromyomata, and even cancer had been found. Twenty-four years have since elapsed. Do we as yet know anything more of the causation of these diseases?

Our Section has done good work in trying to find out the causes of the development of fibromyomata. All observers seem to think that the starting point is in or around a small capillary.

Lawson Tait[2] in 1882 believed that the deranged production of muscle cells which began by a growth near to a vascular supply was due to some error of the nerve influence which he believed to govern menstruation.

Dr. Elizabeth Willey[3] drew attention in a valuable paper at this Section in 1909 to the views of Klebs, Pilliet and others who believed that fibroids begin in the uterine capillaries themselves. Mrs. Willey considers that fibroids originate in proliferating uterine muscle cells developed in vascular tissue and that the stimulus producing the proliferation has some relation to the activity of the sexual organs. Even, however, if Mrs. Willey's views are right, we need to discover the remote cause, which acting probably through the blood supply, stirs these muscle cells grouped round the smaller vessels into activity.

1. "Trans. Obst. Soc., Lond.," vol. xxix, p. 107.
2. "Trans. Obst. Soc., Lond.," vol. xxv, p. 200.
3. "Proc. Roy. Soc. Med.," vol. ii, p. 164.

The effect of oöphorectomy and the action of *x*-rays point to the exciting influence being an ovarian (Graafian Follicle) internal secretion. Can lutein tissue here again be the starting point in the development of fibroids?

Cancer of the uterus. Is anything known of the cause of uterine cancer? Do we realize that in the last nine years over 34,000 women in England and Wales have died of cancer of the cervix uteri (see p. 170). This is at the rate of 3,777 deaths a year. Since Sir John Williams' Harveian Lectures in 1886 but little has been done to try and find the clinical precursors to cancer of the cervix. Dr. Williams proved that there was no causal relation between cervical laceration and cancer, and considered there was then no available scientific evidence that glandular erosions predisposed to malignant change. Those who have had patients develop cancer of the cervix whose previous clinical history is known as regards changes in the cervix uteri might easily help us to obtain evidence on the subject.

Sir John Williams[1] quoted the views of Ruge and Veit who had described cases of glandular cancer originating in erosions, and also described cases of his own where cancer had developed from the deeper glands underlying an erosion, but he had always found healthy gland tissue between the new growth and the papillary glands of the erosion. He had seen no case where the surface gland of an erosion became primarily cancerous, though one of his own cases (case xxvii, p. 69) is not at all conclusive on the subject.

"*Cervical Erosion.*" Our views as to the significance of cervical erosion will depend upon the views we hold regarding the relationships between erosion and cancer. Some of us may recall Dr. Robert Lee's sarcastic description of Dr. Henry Bennet's "ulceration of the cervix uteri," which we now inadequately call "an erosion." Lee said "the so-called ulceration could not be recognised by the sense of touch for it had no margin, inverted or everted, it could not be seen through the speculum till the part had been rubbed with nitrate of silver; it had neither centre nor circumference, beginning nor end." Although Dr. Bennet's pathology, nomenclature, and his overdrawn accounts of the condition were alike wrong, he was the first, as Dr. Watt Black told us in one of his Presidential Addresses, to discover that pelvic inflammation existed in the non-puerperal state. Has not the pendulum of reaction, due in this case to the exaggerations of the discoverer and the ridicule of his critics swung too far? Are we correct in our present view that we may safely ignore the existence of an erosion? Have we no evidence that it may predispose at a later date to a less benign proliferation of the underlying glands and of their lining of columnar cells, and be in fact an early evidence or indication of a tendency towards

1. Cancer of the Uterus, Harv. Lecture, 1886, pp. 36, 40, and 68.

epithelioma. Prolonged ineffective treatment of an erosion causes great inconvenience to the patient, and as Dr. Herman has emphasized, adds distinctly to her nervous tension, or even induces neurasthenia. What then should be our attitude in dealing with cervical erosions? I notice that many advise that erosions should be treated drastically, for instance by scraping deeply and using the actual cautery. Is this because they have a misgiving that they predispose to epithelioma? I have no real evidence one way or another, and personally do not feel able to dogmatise on the subject.

Dysmenorrhœa. There is no recognised consensus of opinion on this subject, indeed I think views as to dysmenorrhœa are less definite now than they were two or three years ago.

What examiner in gynæcology would venture to give a question to-day on the varieties and causation of dysmenorrhœa? The elementary question "What is dysmenorrhœa?" or even, "whether dysmenorrhœa is a symptom or a disease?" would meet with curiously divergent answers according to the medical school of the student. Do we yet know how to explain intermenstrual dysmenorrhœa or mittelschmerz?

Ovarian Papillomata. What is the explanation of the occasional complete disappearance after an apparently useless laparotomy, of large masses of ovarian papillomata which have extensively involved both the peritoneal and sub-peritoneal tissues, the patient recovering perfectly with nothing but a fibrous body to show where the ovary originally was, as I was able to prove in one case?[1] In the large majority of such inoperable cases, death rapidly intervenes, yet the papillomatous growth is microscopically identical with the cases that recover. In other words how can we tell when such papillomata are malignant or benign?

The future of Gynæcology. What is to be the future of gynæcology? Is it to continue to become more and more surgical? I think not. Is it not more than possible that in the near future some President of the Section will give an Inaugural Address upon "Treatment other than operative, in Gynæcology," and will base his remarks upon the wonderful discoveries being made in bacteriological, chemical, electrical and radiographical therapeutics. Even as it is, without considering these new aids in treatment, is there not a tendency nowadays to consider ourselves surgeons only rather than a happy combination of physician and surgeon; to advise an operation because it is the easiest way to treat the case; or to operate in the rush of both hospital and private practice without previous adequate constitutional preparation of the patient.

Wertheim's Operation. Are we not also prone to go to extremes in the details of some of our newest methods of operating. I doubt

1. Routh, Amand, "Trans. Obst. Soc.," vol. xlix, 1907, p. 216.

much if Wertheim's operation for the very advanced cases of cancer of the cervix uteri will continue to be considered wise, nor do I think it will continue to be adopted for very early cases, but rather be reserved for those middle cases where the extended operation is likely to be permanently successful, and worth the extra immediate risk, or where in an early case it is doubtful whether a vaginal operation would suffice to remove all affected tissues.

Ventrifixation. When one hears of the large numbers of cases of ventrifixation being done both in hospital and private, and the numerical proportion they bear to other abdominal operations one ventures to wonder whether those who thus so frequently treat prolapse and retroversion have had any real experience of the advantages, during the child-bearing age, of vaginal pessaries, wisely selected and skilfully applied.

I have not come across cases requiring ventrifixation in anything like the proportion that some others have, and I do not know how to explain the difference.

Mortality Statistics. Why is it that statistics of large series of abdominal operations are not improving during the last few years? Zweifel says that the death rate from all causes after operation has risen from 5·5 per cent. in the period 1887—1892, to 7·8 per cent. in the period 1903—1909. No doubt this is due partly to the introduction of such heroic operations as Wertheim's for uterine cancer, but when these operations are excluded the mortality is still 6 per cent.

He considers that the increase is mainly due to pulmonary embolism which caused 18 deaths in 1,832 operations; he attributes it to the systematic use of Trendelenburg's position. By avoiding flexure of the legs and lowering of the shoulders, he only had three deaths in the following 806 operations. Olshausen agrees with Zweifel in his conclusion.

We are at the beginning of a period when other methods of treatment than surgery are being gradually opened up, but are we not rather closing our eyes to those aids which are already known to us? How many of us have tried to arrest hæmorrhage from fibro-myomatous uteri in cases refusing or unsuited for an abdominal operation, by transferring the patient to our electrical colleagues for exposure to *x*-rays? I have done so in both hospital and private cases, especially at menopause ages, with distinct success. The rays arrest ovulation and the formation of lutein tissue by action on the Graafian follicles, and arrest the growth of fibroids owing to that action and to special action upon the cells forming the fibroid itself. I have not yet had a chance of using *x*-rays in fibrosis uteri.

Do we realize that a tube of radium inserted two or three times for 20 minutes into the crater cavity of an incurable uterine car-

cinoma, in many cases causes complete though so far as is yet known only temporary relief from pain and discharge.

Are we alive to the remarkable effect of electric heat and light baths in pelvic inflammations. They can be easily applied by fixing electric lamps to the ribs of a bed-cradle? These "baths" speedily relieve pelvic pain and promote rapid absorption of both para-metric and perimetric exudation, after the acute stage of the attack has passed.

Bacon said "The whole art of Medicine is observation." Observation in medicine in Bacon's time was almost purely clinical, and treatment largely empirical. The enthusiasm and hard work done by our Section and by our younger members especially is gradually unfolding the obscurities still remaining in obstetrics and gynæcology. The clinical facts now brought before us at our meetings are not, as in the early days of the Society, all that is recorded, but practically every such history is accompanied by a pathological and sometimes with a bacteriological report also.

These and the addition in suitable cases, such as the toxæmias of pregnancy, of the report of a pathological chemist, will I hope ere long enable us to discover the still unknown causes of the many diseases we daily discuss, to some of which I have referred. And when we know the causation, our efforts, both towards prevention and cure, must have their due reward. The discovery of the toxine in toxæmic cases by means of a perfected physiological chemistry will point to its antidote, and diseases which now find us helpless to combat will readily yield both to prevention and to treatment; and critical diseases, such as puerperal eclampsia, now treated by such different surgical procedures as Cæsarean section, decapsulation of the kidneys, or amputation of the breasts, according to the theory or caprice of the operator, will be successfully dealt with by rational methods. I trust that the Obstetric Section of the Royal Society of Medicine will help in no small measure to a solution of the many problems which are still eluding us.

SELECT CLINICAL REPORTS.

(Under this heading are recorded, singly or in groups, cases to which a special interest attaches either from their unusual character or from being, in a special sense, typical examples of their class).

A Case of Pregnancy Complicated by Fibroids.

By W. E. Fothergill, M.A., B.Sc., M.D.

This case is recorded because it was carefully watched through pregnancy, labour and the puerperium to its denouement in abdominal hysterectomy; and because it illustrates some of the risks to which the mother is exposed when pregnancy is complicated by fibroids.

The patient was a young lady, aged 27 years, whose menstrual history was normal. She had been married for a couple of years, and had had one early miscarriage. This was followed by some pelvic symptoms for which she received balneological treatment.

This record thus deals with her second pregnancy, which occurred in July 1910. The last menstrual period began on June 27. In the early part of September there was some pain and bleeding, miscarriage being distinctly threatened, and the patient came under the care of the writer on September 14. The bleeding had then ceased, and the physical signs were as follows:—The abdomen below the umbilicus was dull on percussion. The pregnant uterus occupied a central position and was flanked by a firmer mass on either side. The soft cervix was behind the pubic symphysis, being pushed upward and forward by a hard fibroid which lay in the hollow of the sacrum. The patient was kept in bed for some weeks, and there was no further bleeding; but considerable discomfort was felt as the abdominal mass gradually enlarged.

At the end of December 1910 there was an attack of pain, located chiefly in the left side of the abdomen. It lasted for some days, interfered with sleep and was accompanied by rapidity of pulse and elevation of temperature, while there was marked tenderness over the painful area. The clinical picture, at this time, strongly recalled that seen in various cases which, on coming to operation, have proved to be examples of red degeneration. In this instance the symptoms passed off gradually, and the patient was able to be up and about more or less during the later stages of the pregnancy. But the abdomen became painfully distended by the growing uterine mass. The fibroid in the pouch of Douglas enlarged and remained

in the pelvis, which it nearly filled, and it was realised that delivery by Cæsarean section might be necessary. Towards the end the fibroids to the right and left of the uterus felt like fœtal heads, and a second smaller one on the right felt like an elbow.

April 3 was the most likely day for the occurrence of labour; but on March 25 the membranes ruptured and the waters came away at 1 o'clock a.m. without any labour pains. At 9 o'clock a.m. pains had not begun; the os was soft, but not dilated. It was high up behind the symphysis, and no presenting part could be felt. The fibroid remained as before in the pelvis. At 2 p.m. uterine contractions were still absent. Three four-grain doses of quinine were then given at hourly intervals during the afternoon, and arrangements for Cæsarean section were made. But the uterus gradually came into action, the parts became more soft and mobile, and it was decided to attempt delivery per vias naturales. The anæsthetist came at about 9 p.m., and remained with us for four hours. After some gentle manipulation the head was found resting upon the fibroid which occupied the pelvis. This was pushed up in due course, dilatation was completed by hand and delivery was effected with forceps. The child gave some cause for anxiety during the first two or three hours, but subsequently did well.

The placenta had to be removed by hand as it was nipped and retained by the three fibroids which now bulged into the cavity of the uterus behind and on either side. The posterior fibroid at once fell back into the pelvis.

The puerperium was normal so far as pulse and temperature could indicate. The patient fed the child at the breast, ate well, slept well and was free from pain. The bowels gave no trouble, and, at first, involution went on very well. On April 10 the fundus was a finger's breadth below the umbilicus and the fibroids on either side of it reached just above that level. But the patient did not gain strength; she remained pale and disinclined for the least exertion.

On May 4 the anterior uterine wall was still in contact with the abdominal wall up to within an inch of the umbilicus. Two fibroids could be felt on the right, the larger reaching the level of the umbilicus, as did the fibroid on the left. The fibroid in the pelvis felt rather softer than before labour. The patient remained feeble, her skin was very yellow, and she felt rather miserable. Her pulse was slow, temperature normal, bowels regular, tongue clean, sleep and appetite normal. The question arose, was she suffering from intoxication due to absorption from degenerating fibroids? Was she, on the other hand, simply weak and anæmic after the prolonged strain of the pregnancy and labour? She had had very little outdoor exercise during the whole pregnancy, and had only walked in the garden a little since the confinement. It was decided to get her away for change of air and scene as soon as possible.

But on May 10 her pulse and temperature rose, she vomited several times and became acutely ill. Next day the temperature reached 104°, and her stomach would retain nothing. On May 12 the symptoms were less acute, but there was still some fever. It was therefore decided that the tumours must be removed, for it was clear that degeneration had been going on, and it was probable that infection and perhaps suppuration had occurred.

On May 14 the abdomen was opened. When the uterus was brought up the posterior fibroid was found to be adherent in the pouch of Douglas. As it was separated from the rectum it burst and let out a surprising quantity of pus. When this fibroid was once got up out of the pelvis supravaginal hysterectomy was easily completed and the abdomen was closed without drainage. The patient, doubtless, had gradually gained some degree of immunity from the effects of infection by the organisms present, for the pulse and temperature were normal from the day of the operation onward. A feature of the recovery was the rapidity with which the patient improved in colour and passed out of the depressed and apathetic condition which followed the confinement.

Examination of the specimen showed that the posterior fibroid was converted into a simple pus sac, while the other tumours were also degenerated and contained a certain quantity of pus.

The case recalls another previously published by the writer, in which a patient, aged 44, was carefully nursed through her one and only pregnancy in the hope of obtaining a living child. Preparations were made for Cæsarean section; but, at the last moment, the fibroid which occupied the pelvis was pushed up and delivery was managed by bringing down the legs. This long-expected child proved to be a monster of revolting aspect. It could not be shown to the mother, and fortunately died in a few hours. In this case slight signs of intoxication led the writer to do abdominal hysterectomy on the eighth day after labour. At that date there were already adhesions in the pouch of Douglas and the greater part of the fibroid was broken down into semi-purulent debris. This patient also appeared to have immunised herself, for she made a recovery which was afebrile.

Occlusion of the Lower Part of the Vagina with Absence of the Uterus.

By J. Prescott Hedley, M.A., M.B., M.C. (Cantab.),
Obstetric Physician to Out-patients, St. Thomas's Hospital.

The patient (F.W.) was 24 years of age and had been married for six months.

I saw her first in the out-patient department of St. Thomas's Hospital in August 1910, where she came to learn whether she was pregnant or not, and was admitted on September 9 1910.

The history of the case is as follows:—

The patient had always enjoyed good health, and there was nothing of importance in her family history.

Catamenia began at the age of 14, but with the exception of the first and second periods there had been no vaginal bleeding until marriage. From the onset of menstruation until after marriage there had been severe pain in the lower abdomen and back for one day during every month, accompanied by headache and sleeplessness, but there was no discharge of any kind.

A fortnight after marriage the patient had what she regarded as a period, it was accompanied by her usual monthly symptoms but the discharge was rather watery. From that time the monthly pains ceased and there was no further vaginal bleeding. Soon after this period the patient began to suffer from attacks of nausea and vomiting, which persisted for rather more than four months; she also noticed that the abdomen was enlarging and that her breasts were hard and painful. Micturition was normal, the bowels were not constipated, but during the three weeks before admission to the hospital there had been on two or three occasions a small amount of red discharge from the bowel with the motions.

On Examination no abnormal swelling could be felt in the abdomen, but there was tenderness over the lower part on deep pressure.

The breasts showed no signs of pregnancy. The lungs, heart, thyroid and urine were normal.

The vulva was normal in appearance except that there was no vaginal opening or any indication of it.

When firm pressure was made with the finger in the normal position of the vaginal opening a depression nearly $1\frac{1}{2}$ inches deep could be produced.

Under the anæsthetic before the operation on rectal bi-manual examination an indefinite central mass could be felt in the position

of the uterus; it was about $\frac{1}{4}$ inch in thickness and appeared to be the atrophic uterus.

On examining laterally structures resembling Fallopian tubes could be felt but no ovaries could be discovered.

Operation, September 10 1910. I made a transverse incision in the position of the normal vaginal opening and spent a considerable time in trying to discover if any vagina existed and to open it, a sound was kept in the bladder and the finger in the rectum to avoid injury to either organ.

After dissecting upwards between the bladder and rectum for about two inches a communication was effected with a cavity which was lined with mucous membrane, and was undoubtedly the upper part of the vagina.

In the roof of this cavity there was no sign of any cervix or os uteri, but the same mass that was found on rectal bi-manual examination could be felt in front of the vagina. The wound was swabbed out with peroxide of hydrogen solution and the mucous membrane lining the cavity fixed with catgut sutures to the mucous membrane round the original incision. Finally, the vagina was packed with iodoform gauze.

The gauze was removed on the fourth day and a vaginal rest introduced; larger rests were substituted for smaller ones every two or three days until the largest could be tolerated.

The patient left the hospital on the twelfth day after the operation. At that time there was no contraction in the lumen of the vagina, and it was completely covered with mucous membrane, the passage was rather shorter than the normal vagina.

There was no pain on examination.

No trace of cervix or os uteri could be found nor any evidence of a uterus.

I saw the patient on October 13 1911, when she reported herself at the hospital.

She had been well since discharge and had put on a good deal of weight. There had been no vaginal bleeding or menstrual pain and no recurrence of the rectal bleeding. There was no difficulty or pain on coitus.

On examination the vulva appeared normal and there had been no contraction of the vaginal opening.

The finger could be introduced for three inches, but the upper part of the vagina was much less roomy than the normal vagina. No abnormal swellings could be found on rectal bi-manual examination.

The chief points of interest are, I think:—

(1) *The History.* There was a definite history of two periods at the commencement of menstruation and one after marriage.

For ten years there had been regular severe monthly disturbances. These ceased two weeks after marriage leading her to think that she was pregnant, and have not returned since.

(2) *The anatomy.* The development at both the upper and lower ends of the vagina was abnormal.

The uterus was either absent or very rudimentary and had no communication with the vagina which was rather shorter than normal.

The obstruction at the lower end appeared to be a thick hymen; there was no trace of a hymen superficial to it.

(3) *The operation.* The difficulties of the operation arose entirely from the fact that the vagina did not contain menstrual fluid and consequently was difficult to find.

The septum was only $\frac{3}{4}$ of an inch in thickness, but the dissection was two inches deep and very extensive before the lumen of the vagina was opened.

I think that if I met another such case, where considerable invagination could be produced by pressure, I would try to evaginate the obstructing tissues by seizing and drawing down the mucous membrane in the position of the normal opening. In this way I believe that it would be easier to strike the lumen of the vagina, and that there would be less danger of injuring the bladder or rectum.

(4) *The urethra.* It is well known that sometimes in cases of this nature repeated attempts at coitus produce dilatation of the urethra. I have always found it difficult to explain how the early stages of this dilatation are brought about, but I think that this case demonstrated the method.

There was no dilatation of the urethra and, as mentioned above, pressure in the position of the vaginal opening produced invagination to the extent of about $1\frac{1}{2}$ inches: this depressed mucous membrane was not derived equally from that around the point of pressure but to a much larger extent from the anterior than the posterior part of the vestibule. In this way the urethral opening was drawn into the depression, and could be felt with the finger and seen through a speculum at the very top of the pocket. The urethra was thus directly continuous with the passage produced by pressure and in such a position it is easy to see how its dilatation might occur.

REVIEWS OF CURRENT LITERATURE.

UNDER CHARGE OF EARDLEY HOLLAND, M.D.

LIST OF COLLABORATORS:

LONDON. Alban Doran, F.R.C.S.; S. Jervois Aarons, M.D.; J. Barris, M.B.; C. White, M.D.; J. A. Willett, M.D.; J. Wyatt, F.R.C.S.
EDINBURGH. Miss J. H. Filshill; R. W. Johnstone, M.D.; James Young, M.D.
GLASGOW. E. H. L. Oliphant, M.D.
ABERDEEN. W. R. Pirie, M.B.
BIRMINGHAM. Frederick Edge, M.D.; H. B. Whitehouse, M.S.
MANCHESTER. W. Fletcher Shaw, M.D.
SHEFFIELD. W. W. King, M.B.
CHELTENHAM. C. J. N. Longridge, M.D.

Thermotherapy in Gynæcology.

FLATAU (*Ann. de Gyn. et d'Obstet.*, August, 1911) describes an apparatus of his own invention to supply heat for prolonged periods to the pelvis. It seems to consist of a kind of speculum with a small electric heater attached.

He claims good results in inflammatory conditions and has shown a gradual rise in the temperature of the bladder and rectum during the application of the instrument

The rest of his article is spent mainly in proving the priority of his invention and pointing out how much cheaper it is to buy than similar instruments designed by other people. C. W.

Atmokausis in Practice.

PINCHUS, Danzig, devotes a double number of (*Volkmann's Samml.*, Nos. 628, 629, 1911) to the consideration of the use of his "atmokausis," based on his large work published five years ago. He discusses various novel points in the latest technique and goes fully into the indications and contraindications in the light of extended experience. This method of treatment has been tried in all sorts of possible and impossible cases, but it must be borne in mind that if we are to find a golden mean we must have crossed the bounds of expediency to find what are its limits.

He gives a detailed description of his most recent form of apparatus, the chief novelty in which is the disuse of metal in the intrauterine portion of the atmocautery. The change to celluloid (Zelluvert) has been introduced to avoid risk of damage to the uterus by accidental contact with hot metal parts. There is a dome-shaped brass boiler, fitted with carefully fixed thermometer and safety valve, the latter adjusted to begin blowing off when the temperature reaches 115°C. The steampipe comes off the top of the dome to prevent priming and is connected by a lagged rubber pipe, about a yard long, to the catheter. The catheter is a metal pipe fitted with a three-way cock allowing the steam to be directed at will into the catheter, to blow off or to be shut into the boiler. The blow off pipe, like the return pipe from the catheter, is fitted with a rubber tube to conduct the steam and condensation water out of harm's way. The return tube passes back over the operator's hand and

should, at first at any rate, be lagged in case it should burn the operator. The end of the catheter leads into the intrauterine portion made of celluloid in various sizes —10 to 18 of Hegar's dilators—on the principle of the Bozeman-Fritsch catheter. It has only one opening, at the point and is *not* now made conical in any part. The importance of this will be explained later. [The "Zestaucautery" is a metal cylinder, without openings to the uterus, or it may be bullet pointed for reaching the cornua of the uterus.] A cylindrical wooden speculum is used and, as there is sometimes difficulty in exposing the cervix with the short speculum, the cervix can be grasped with forceps with detachable handles so that the speculum can be passed over the forceps, when the handles can be refitted and the cervix drawn into view. A split speculum is convenient of application but does not protect the parts so well. The boiler should be thoroughly tested to three atmospheres of pressure and the leather washers of the valves and thermometer gland must be steam proof. A good lamp is supplied burning spirit vapour and capable of having the flame easily regulated to keep up sufficient pressure during use or during any delay.

In operating it is absolutely essential that the interior of the uterus be dry, that is free from mucus or any trace of blood, and that no steam escape through the os internum. If a curetting has been previously performed, great care must be taken during that operation, to avoid any damage at the internal os. In the application of the steam the catheter is passed to the fundus and drawn back 1 centimetre before the steam is turned on, and the steam must always be shut off before drawing down the catheter to cauterise the lower part of the cavity. The importance of the non-conical point is now obvious in preventing the escape through the os internum. Before use the catheter points are sterilized—best by cleaning with spirit soap, soaking for a few minutes in *pure*, water-free fluid carbolic acid and then rinsing in 5% lysol, which further serves as a lubricant. The whole is warmed before use by a blow through of steam, which also drives out any condensed water.

If the uterus is small and reacts well a temperature of 115°C. is sufficient and 5″—15″ are long enough. In large flabby uteri 120°C. may be necessary but two minutes is the absolute maximum of time permissible. It cannot be too much insisted on that "if the uterus does not contract at once the case is not one for atmokausis": the treatment must be stopped "at once" and no repetition is permissible.

The treatment is not to be entrusted to the general practitioner: the skilled gynæcologist must make himself familiar with all the details of the technique before attempting it. An assistant is not necessary but is desirable, especially at first: the treatment is painless and narcosis is accordingly unnecessary so far is the atmokausis is concerned, but if previous dilatation is necessary this may require an anæsthetic. The treatment is not to be used for "out-patients." If exceptions can be made to this rule, which Pincus now denies, no exception can be made to the rule that during after treatment the patient must be kept in bed and watched till all sloughs have come away. As some patients are frightened by the steam it is as well to tell them that instruments are sterilized by this nowadays, and the operator must beware of the women who have read that "steaming" is a method employed to cause sterility.

Atmokausis is absolutely contraindicated when there are any inflammatory complications in the adnexa, or in the presence of gonorrhœa. So also any rise of temperature during menstruation, presence of pus anywhere, presence of malignant disease, polypi in the cornua, or the production of pain in the "belastungs Lagerung," i.e., filling the vagina with mercury or shot with the pelvis raised, are all contra-indications in addition to the presence of any fluid as before mentioned. The cervix must be sufficiently dilated before operation and the cavity is to be cleaned out and dried with such drugs as hydrogen peroxide and adrenalin. If it is desired to obliterate the cavity, curetting must be performed three or four days earlier. It is

advisable not to use saline transfusion before cauterising as it may lead to a hæmorrhage which will interrupt the procedure. Flexure versions must be corrected. Should synechias result and cause hæmatometra the condition can be relieved without extirpation. After applying the cautery it is well to pack the cavity with iodoform gauze. The patient should be kept lying from 4—10 days according to her condition. If the sloughs have not come away by that time they should be removed so soon as loose. A sound should be passed weekly for a couple of months and a few times more at intervals of one or two months.

In all cases where curetting has failed atmokausis should be tried before hysterectomy is performed. It is the most useful treatment in all uncomplicated bleedings of the climateric. As a last word—failure of the uterus to contract is an absolute contraindication. For further details the reader is referred to the author's large work, Bergmann, Wiesbaden, 1906. E. H. L. O.

Operative Treatment of Genital Tuberculosis.

Mayer (*Gynækologische Rundschau*, v. Jahrg., 19 Heft) reports a series of 40 cases of tuberculosis of the abdomen operated on in four years. Of these, in 21 cases the disease was situated in the uterine adnexa—the peritoneum, if involved, was only the seat of adhesions. In 19 the disease was definitely peritoneal in nature, with scattered tubercles, ascites, etc. Some of the conclusions arrived at are interesting and important.

1. Sterility, as is to be expected, is much commoner (8 times) in the adnexal tubercle than in the peritoneal. The author states that in a large number of cases of tubercle there is present an infantile condition of uterus, and he states that this may be due to the fact that the tubercle causes the uterine atrophy or, on the other hand, because infantile genitalia constitute a "locus minoris resistentiae."

2. There are no characteristic symptoms of pelvic tuberculosis. In adnexal tubercle pains in the abdomen and small of the back are frequent; in the ascitic variety pain is often absent. The symptoms may commence acutely and may simulate appendicitis or torsion of the pedicle of an ovarian tumour.

3. Fever before the operation is a bad prognostic sign: about half of these cases die.

4. Pulmonary disease tends to increase after the operation, and with this complication the operation should be carried out only in urgent cases.

5. Conservative measures should always be attempted in the treatment of pelvic tuberculosis and in a young patient an ovary or a piece thereof should always be left if possible. Where a complete extirpation of the internal genitalia is not carried out, the chance of a future operation being necessary should be clearly recognised and explained to the patient. J. Y.

Prophylaxis of Post-operative Peritonitis by Introduction of Oil into Peritoneal Cavity.

Burckhardt (*Zentralblatt für Gynäkologie*, No. 33, 1911) favours the use of camphor oil introduced into the abdominal cavity as a preventive of peritonitis. The oil may be introduced 24 or more hours before the operation or it may be left in during the operation. The latter procedure gives good results in infected cases. For example Kolb used it in 79 cases. Out of 53 of these which were infected (pyosalpinx, suppurative appendicitis, pyovarium, carcinoma) only one died of peritonitis—a very gratifying result. So Fehling uses it in the same way, 10% camphor oil being employed. The results are especially satisfactory in Wertheim's operation.

Burckhardt's experiments were conducted in white mice. ·2 or ·3 ccm. of 10% camphor oil being injected directly into the peritoneal cavity. In one case peritonitis due to injury of the bowel led to death. In 4 out of 12, clonic convulsions terminated

fatally. In most cases shock passed off in 24 hours. Streptococcal cultures derived from man were employed, in two cases mixed with colon bacillus. In each case a control animal, which had not been injected with the oil, was used. He injected as a rule ·1 to ·15 ccm. of the culture (corresponding to 350 ccm. in a man of 70 kilogm.). There was an immunity in every case, which was remarkable in view of the big doses of culture used. The optimum result was obtained 24 hours after the oil injection, but the benefit was marked for several days. J. Y.

Technique of Ante-Operative Irritation of the Peritoneum.

Hoehne (*Zentralblatt für Gynäkologie*, No. 32, 1911) recommends the introduction of camphor oil into the peritoneal cavity to set up a plastic peritonitis as a prophylactic measure before an abdominal operation. Whilst originally using ether anæsthesia, he now finds it easy to carry out the procedure without any anæsthetic, local or general. The following is the technique: The skin is disinfected with iodine and, in the midline, a very small incision through epidermis and cutis is made with a small sharp-pointed knife. This is just big enough to allow of the introduction of the blunt needle, which is forced perpendicularly through the fascia. When this is done the needle is pushed obliquely through the peritoneum to avoid injury to the bowel. To adapt it to thick abdominal walls the needle should be 9 cm. long. The stilette of the needle is withdrawn and 10 ccm. of a warm 1% solution of novocain and adrenalin are injected. Five or ten minutes afterwards 30 to 50 ccm. of the camphor oil, which has been warmed, is injected. Because of the risk of fainting, etc., which is met with, only a 1% camphor oil is to be used in weakly patients. In strong persons it may be used as strong as 10%. After the injection there may be pains in the abdomen, which soon pass off. The pulse is unaffected, the temperature may rise slightly, sickness is present rarely. Great care is to be taken if adhesions to the abdominal wall are suspected.

The operation is carried out not less than 24 hours and preferably 3 or 4 days after the injection. The writer has noted a strong reaction in the peritoneal cavity from 6 to 15 days after the injection. Even after 7 weeks he has seen distinct traces of an aseptic, fibrinous peritonitis. The procedure has been carried out by the writer and colleagues 120 times with good results. J. Y.

The Plaster Lace.

H. Grad (*American Journal of Obstetrics*, August, 1911) calls attention to a method of closure of the skin incision of laparotomy wounds that has been used at the Woman's Hospital, New York City. The method consists in coapting the skin incision by lacing instead of suturing. Two pieces of Z.O. adhesive plaster, six by eight inches long, are pasted on a glass bottle four inches in diameter. Hooks used by dressmakers are then sewed to the edge of the plaster one inch apart, and the flask sterilized. To facilitate the removal of the plaster hot water is poured into the bottle. Before applying the plaster lace the skin for eight or ten inches on either side of the wound is dried with ether and the plaster is placed so that the hooks are an inch away from the edge of the skin incision and is made to adhere firmly to the skin. The lacing is begun in the centre of the wound as by this method it is easier to close the wound smoothly, and the tension is adjusted so as to bring the edges of the wound in apposition. Twenty-four hours later the dressing should be changed. The plaster lace should remain on the skin from ten to twelve days.

Grad argues that the advantages of this method are that the incision can be inspected at any time and that the coaption of the wound is under absolute control: that there is no danger of stitch abscesses: that in suppurating wounds the escape of pus is favoured by this method. A tabulated report of 50 cases is added, all of which healed by primary intention with six exceptions, in one of which the plaster was loosened by bleeding. S. J. A.

A Report of Recent Cases of Inoperable Sarcoma Successfully Treated with Mixed Toxins of Erysipelas and Bacillus Prodigiosus.

William B. Coley (*Surgery, Gynæcology, and Obstetrics*, August, 1911). In this paper the author reports fifteen successful cases of advanced sarcoma treated by means of his mixed toxins. He has also had one case of recurrent carcinoma of the breast which he has cured by this treatment. Short clinical and pathological notes of 34 other cases treated by different surgeons are also reported.

Coley himself has now successfully treated 65 cases of inoperable sarcoma in this way, and he has been able to follow up 41 of these with the following results:— Seven remained well at the end of 15 to 20 years. Seven remained well at the end of 10 to 15 years. Seventeen remained well at the end of 5 to 10 years. Ten remained well at the end of 3 to 5 years. W. W. K.

Combined Abnormalities of the Genito-Urinary Organs in Women.

Bolaffio (*Zeitschr. f. Geb. u. Gyn.*, Bd. lxviii, Heft 2) gives an elaborate analysis of cases recorded in the literature. In one group he places those cases due to the absence or premature arrest of development of a germinal fold, in which there is a uterus unicornis without any rudimentary horn and a complete absence on one side of the kidney and ureter. A second group is due to a primary disturbance of the growth of the head of the kidney eminence. As a result of pressure on the down growing Müllerian columns, we find, if both kidney buds remain in the pelvis, a rudimentary uterus usually solid; if only one kidney is interfered with, in half the cases a rudimentary uterus, in the other half a uterus unicornis with a rudimentary horn on the affected side. Premature arrest of growth of the caudal portion of the Wolffian bodies, along with diminished growth of the Müllerian columns results in absence to a greater or less extent of the kidney on that side, as well as either (a) a uterus unicornis with a rudimentary horn on the affected side, or (b) uterus bicornis duplex, or small double uterus, usually with some atresia of the genital tract on the affected side. R. W. J.

Formation of an Artificial Vagina.

Pozzi (*Revue de Gyn.*, August, 1911) describes two cases in which he has made an artificial vagina by skin grafting. He claims success in both cases. The chief points in his technique are displacing the urethral orifice up the new vagina to save tension on the flaps and the formation of skin flaps from the labia. He shows photographs of his patients some months after operation.

Unfortunately it appears that both patients have to wear a belt supporting a vulcanite bougie in order to keep the "vagina" from closing up. C. W.

Treatment of Leucorrhœa.

E. Puppel (*Monatss. f. Geb. u Gyn.*, Bd. xxxiv, Heft 2, p. 224) recommends the dry treatment as proved by himself and by many others, and gives an abstract of recent literature on the subject. It is suitable in the vulvo-vaginitis of children and the fluor albus of young women as well as in chronic gonorrhœa and long-standing cases of catarrh of the cervix with erosions. Although it cannot be considered as an absolute panacea, it is much superior to disinfectant douches and ichthyol-glycerin tampons. Any accompanying chronic endometritis must of course be suitably treated, unless in the presence of contraindications such as acute cervical gonorrhœa, and inflammation of the adnexa.

Especially useful is the substance known as Xerase, a combination of Bolus alba yeast sugar salts (? phosphates), prepared by Riedel, Berlin, at the desire of Abraham. It is introduced in the form of cylinders which remain a considerable

period in situ. A disadvantage of some weight is, that if left unchanged more than 48 hours a disagreeable odour is observed by the patient. For this reason it may be thought preferable to use it in simple powder form which is insufflated. Tojbin recommends it in a study of sixteen cases of leucorrhœa and of gonorrhœal proctitis. In nine cases cure was definite and improvement in the remainder. A final opinion in the case of such a chronic long-continuing affection, however, can be gained only after a lengthy period of observation frequently controlled by bacteriological examination, etc. Zymin, a preparation of yeast, has also earned a reputation in this connection, although many observers are doubtful of the action of yeast seeing that it is quite uncertain whether the bactericidal property be due to an enzyme, or a proteolytic poison or a chemically acting metabolic product in the yeast.

Kehrer and Fränkel found such good results from the use of sterile yeast (Daûerhefe) that they look upon it as a prophylactic against gonorrhœa, preventing its reaching the adnexa, etc., though they also advise cauterisation of the endometrium in chronic conditions as well.

Xerase seems to get rid of extensive erosions very rapidly according to Abraham and Tojbin. Aufrecht showed by bacteriological examination that gauze impregnated with Bolus alba and salicylic acid or aluminum acetate, prevented the growth of streptococci, staphylococci and bacillus pyocyaneus in greater measure than the usual 10% iodoform gauze. The bactericidal action of Bolus alba depends upon its very high hygroscopic power, and the powder can be readily applied by putting it in a speculum and pushing it in by a tampon. When the action of yeast is added to that of Bolus alba, the results are still more satisfactory, and Xerase seems likely to displace ichthyol-glycerine altogether. W. R. P.

Uterine Inversion.

Thorn, Magdeburg, in a monograph of more than a hundred pages (*Volkmann's Samml.*, Nos. 625—627) discusses this condition in its various aspects, and devotes a considerable space to combating Schauta's arguments that the condition is paralytic. Thorn has gone back twenty-two years in his search through medical literature and has collected 521 cases of postpartum inversion: these are set out in tabular form and a special column refers to the management of the third stage: this in itself is deserving of study in view of actions for malpraxis following on cases of inversion: in the majority of cases it was completed spontaneously. The condition is one of extreme rarity, but its proportional occurrence in maternity hospitals does not seem less than in private. In several cases the condition recurred after reposition and several women suffered from inversion in several labours. Thorn, in his tables, can find no evidence of racial proclivity to this accident, though it has been asserted that negresses are specially liable. Primiparas are disproportionately numerous. The preceding labour is usually easy; many procedures were employed in the third stage—expectancy, Credé, pulling on cord, manual separation. Thorn classifies all the midwives' cases as probably "violent." The accident occurs, or is diagnosed, at various times, immediately after the expulsion of the fœtus or not till during the puerperium. These last probably occurred gradually, beginning with a simple dimpling of the fundus. The causation of these latter cases is ascribed to old or recent cervical tears, to old or recent prolapsus uteri, to fundal site of the placenta, to abnormal thinning of the uterine wall at that situation or to attachment of blood clots there, the so-called placental polypus. Thorn excludes the possibility of acute inversion during the puerperium from simple excess of intra-abdominal pressure. Cases may run undiagnosed till after the cessation of suckling as involution can proceed undisturbed, though in some cases gangrene has resulted. Spontaneous reinversion occurs in a few cases, thirteen are quoted. The mortality of 16% arose from hæmorrhage, shock, sepsis, and pulmonary thrombosis.

After describing the many forms of treatment employed, Thorn recommends splitting the uterus, replacing and suturing through an anterior colporrhaphy, as this is less likely to lead to troublesome adhesions than a suture line on the posterior surface. A good view is obtained, so that it is nearly always possible to clear the adhesions that may have formed inside the "inversion-funnel," and by this incision it is possible to clear the bladder which may be very difficult by the posterior incision. It is sometimes necessary to remove a wedge of uterus to obtain reposition.

During the stage of acute inversion, which is rarely immediately fatal in itself, Thorn seems to advocate delay in active treatment: the shock of immediate attempts at reposition may turn the balance against the recovery of the patient. Where the patient appears to be bleeding to death a temporary elastic ligature may be used: the bladder is only to a very small extent dragged into the inversion-funnel, and in any case is protected from pressure by the thick walls of the uterus: it may be necessary to proceed later to hysterectomy in such an extreme case. If it is possible, from absence of shock, to proceed to reposition, Thorn advises the previous separation of the placenta. It is seldom that the whole uterine sac is so flabby as to permit of reposition of the fundus, placenta and all, through the isthmus.

Tables of inversions after abortion are given and also of inversions due to new growths, of idiopathic inversions, and of an extremely interesting series of post-mortem, postpartum inversions. Along with these last are grouped some post-operative cases, e.g., a case of postmortem Cæsarean section where later it was found that the uterus had inverted itself through the uterine incision and lay in the abdomen like a huge mushroom with the placenta lying on the top. Some of the cases would appear almost incredible, and might have been ascribed to inattention during life, if they had not been verified by postmortem examination, i.e., the absence of delivery at the first examination and its presence along with inversion at a subsequent examination. Such cases are explicable by some muscular action analogous to rigor mortis, and at a later stage to the high intra-abdominal pressure from putrefactive changes. The onset of labour before death cannot with certainty be excluded in these cases.

The etiology of inversion is still a subject of dispute that is chiefly concerned with muscular action. Schauta considers the chief cause to be paretic. Thorn inclines to the opinion that fundal insertion of the placenta is the chief factor, and insists on the importance of the exact placental site being noted in future records. This is the first part to be invaginated, he says. Fundal insertion is more common in primiparas, hence the greater frequency of inversion in their labours. In general, the infrequency of fundal insertion explains the rarity of inversion. Tumours that cause inversion are single.

One of the essential points in Thorn's argument is the contraction ring: if the invaginated portion falls or is drawn or pushed to this, any muscular action will cause it to be inverted or reinverted according as it has or has not passed this point. There is probably a paretic condition of the placental site, but this does not extend to the rest of the uterus as Schauta maintains. E. H. L. O.

A New Operation for the Vaginal Shortening of the Utero-Sacral Ligaments.

Henry Jellett (*Surgery, Gynæcology, and Obstetrics*, August, 1911), after a more extended experience of his operation for the vaginal shortening of the utero-sacral ligaments, has come to the conclusion that it is best combined with interposition (Wertheim) of the uterus and colpoperinæorrhaphy in the treatment of procedentia. The full technique of the operation is described and the article is illustrated by reproductions taken from the author's "Short Practice of Gynæcology." W. W. K.

Necrobiosis of Fibroids.

Lecène (*Ann. de Gyn. et d'Obstet.*, August, 1911) lays stress on the necrobiotic fibroid being aseptic. Legros and Lecène made both anaerobic and aerobic cultures from four typical cases but failed to grow any organisms. The colour is due to the diffusion of hæmoglobin into the dead tissues. Under osmic acid staining a small amount of fatty degeneration of the fibres can be seen, but it is only slight. The pus-like fluid sometimes found only consists of cell débris and the tissues do not show small cell infiltration. Regarding the causation of the necrobiosis, he has been unable to find changes in the vessels of the tumour sufficient to account for the degeneration.

C. W.

Suppuration of a Sub-Peritoneal Fibroid.

Lecène (*Ann. de Gyn., et d'Obstet.*, August, 1911) records a case of a fibroid removed by hysterectomy which on section contained several drachms of green, offensive pus. B. Coli was obtained on cultivation of the pus.

The uterus contained many normal fibroids but the infected one was adherent to a coil of intestine.

The symptoms present were pain and metrorrhagia. Fever had been present but the temperature had been normal for some days when the operation was performed.

C. W.

An Unusual Chorion-Epithelioma.

Lecène (*Ann. de Gyn. et d'Obstet.*, September, 1911) records a case where the primary growth appears to have been in the veins of the left broad ligament. The patient was 54 years of age and had had a six months miscarriage six years before. Two and a half years before she had been curetted for menorrhagia—for two years after the curettage she menstruated regularly and then menstruation ceased and she had seen nothing till admitted to hospital on account of pelvic pain. The uterus contained fibroids and a hæmorrhagic mass was found in the left broad ligament during the operation. The mass was as big as a large orange and was taken to be a hæmatoma. It was subsequently proved to be a chorion-epithelioma. Sections of the uterus failed to show any primary growth there and no metastases were found in the viscera. Lecène points out that it must either be a primary affection of the pelvic veins or else a case in which the primary uterine growth had disappeared. If the second theory is the correct one it is remarkable that a simple curettage should remove the whole of the primary growth so that the patient had no intermenstrual bleeding for two and a half years and absolute amenorrhœa for six months.

C. W.

The Connective Tissue in the Ovary of the Newly-born.

Delestre (*Soc. Obst. Gyn. et Paed. de Paris*, 1911, vol. xiii, No. 2, p. 91). Microscopic examination of the ovary in such cases shows (a) the germinal epithelium covering the surface of the ovary, (b) a large zone containing ovules and follicles, (c) the blood-vessels centrally placed.

The ovules in the different stages of their development are arranged within the large zone (b) in a definite order. Thus three subsidiary zones may be described in passing from the surface inwards. (1) A layer which contains Pflügers tubes and the germinal islands, (2) the zone of the primordial ovules, (3) the follicular zone.

Each of these zones varies in importance in different ovaries, so that three types of ovaries may be mentioned: (a) the fœtal type, (b) the intermediate type, (c) the adult type. This division into three types is justified not only by the arrangement of the ovules and the follicles but also by the nature of the ovarian stroma. In the fœtal type this is composed of very thin fibrils which surround the germinal islands. In the intermediate type the arrangement is the same but the connective tissue

strands are much thicker, of which there is also a distinct band placed near the surface and having a sinuous course.

In the adult type the connective tissue strands become very much thicker, and from the larger strands thinner ones are given off.

Within the cavity of the follicle a fact is noticed similar to that which is found in the cow, in that when the follicle atrophies the granulosa does not disappear completely. J. B.

Retrouterine Hæmatocele Due to Bleeding from a Degenerated Ovary.

WINIWARTER (*Zeitschr. f. Geb. und Gyn.*, Bd. lxviii, Heft 2) records an interesting case of this nature. The patient was a healthy peasant woman, mother of eight children. Nine months after the last labour, the menstrual periods having returned normally for some months, she was seized at night, after coitus, with severe pain in the abdomen. Her medical attendant found on examination tenseness and tenderness of the abdomen, and, vaginally, tenderness on every movement of the uterus. On the following day she was better, but felt pain in the abdomen, and especially in the rectum and over the small of the back. Defæcation and even the passage of flatus were painful. A week later the patient had a bleeding, menstrual in character, which continued for a week, accompanied by pain in the abdomen, rectum, and small of the back. On examination the physician found a swelling occupying the pouch of Douglas and, believing the case to be one of ectopic gestation, sent her into hospital. Here she was observed for some days until the temperature began to rise, when operation was undertaken. On opening the abdomen no free fluid was found. The tumour was seen spreading backwards from the right adnexa. The left tube and ovary were free and normal. The right tube was also found to be normal and not in any way connected with the hæmatocele. The ovary was enlarged and at one point bright red blood was flowing from it. The vessels were secured and the adnexa on that side removed. The ovary on examination was found to contain a number of small degenerate follicles. Around some there was extreme congestion and the blood had escaped and burst through the covering epithelium at one point.

The author believes that the coitus which immediately preceded the onset of symptoms was the precipitating cause, partly by the induced hyperæmia, and partly by direct pressure upon a prolapsed ovary. R. W. J.

Primary Cancer of the Fallopian Tube.

MAISS (*Monatsschr. f. Geb. u. Gyn.*, September, 1911, p. 379) operated on a woman for cancer on the left tube. She was 56 years old and had borne four children, the last was 24 years of age. The periods had ceased for two years. About six months before she came under observation, hæmorrhage occurred, it was trifling but lasted only three days. A second attack took place over five months later and lasted for a fortnight. Then, she was admitted into hospital. The uterus was anteflexed and retroverted. It was not enlarged, and when the curette was employed no morbid condition could be detected nor did the bleeding increase. Maiss removed the uterus and appendages through the vagina. The uterus and the right appendages showed no signs of disease. The left Fallopian tube was distended, forming a tumour of the size of a peach. Its abdominal end was obstructed and it was adherent, though to a slight degree, to surrounding structures. It contained bloody fluid and broken-down tissue. Its inner wall was completely covered with papillomatous masses over half an inch deep. When fresh, they floated out in water like villi in a young ovum. Some of the out-growths sprang singly from the tube wall, others lay pressed together in layers, others in tufts of some size. The tubal walls were somewhat thickened, their vessels much dilated, and their coats distinctly

invaded at points by the growth. The papillæ were invested with epithelium arranged in several layers. The nuclei were round or oval and almost filled the body of the cell which sent conical processes into the connective tissue in the substance of the papilla, and into the tubal walls where they lay in proximity to the latter. In a few papillæ, the epithelial layer was single, as on the surface of the tube where there were no growths. This single layer of epithelium showed no signs of proliferation. The tubal wall was the seat of chronic inflammatory changes. The patient made an uninterrupted recovery. Maiss considers that the new growth was an alveolar-papillomatous carcinoma, a papilloma that had undergone malignant degeneration. It supported, he concluded, the theory that cancer of the tube arises from a papilloma. A. D.

Primary Cancer of the Tube.

Scheffzek (*Monattss. f. Geb. û Gyn.*, Bd. xxxiv, Heft 2, p. 245). At a meeting of the Gynæcological Society of Breslau a preparation was shown from a patient, aged 61, operated on in July, 1910. She had suffered from hæmorrhages and disagreeable fluor for about four months and had been getting thinner for six months, and her case was diagnosed as carcinoma of the ovary.

On examination the portio was virginal, the uterus small and retroflected, the right ovary seemed the size of a hen's egg, firm and irregular. Curettage showed normal conditions of the interior of the uterus. On laparotomy a tumour was removed which consisted of the left tube which from its appearance seemed malignant —the ovary of the same side was small and cystic and degenerated. The right ovary and tube were found normal. The extirpated tumour proved to be of the size of a goose egg with irregular surface, the fimbriæ and that end of the tube were normal and also 1 cm. of the portion next the uterus. The part between these two ends showed the tube wall becoming directly incorporated in the tumour tissue, which on microscopical examination was of the small spindle cell variety.

The case is interesting as an addition to the eight cases collected by Veit of primary sarcoma of the tube.

In the discussion which followed, various views were expressed as to whether the tumour were actually malignant or not, and whether it might not be carcinoma rather than sarcoma. W. R. P.

Successive Tubal Pregnancies.

M. Rabinovitz (*Amer. Journ. of Obstetrics*, August, 1911), in a lengthy paper, quotes two cases in detail and reports cases from 1895 to the end of 1910. He considers his report shows that out of the 147 cases of repeated ectopic gestation ten or 6·8 per cent. have borne one or more children in the interval between the first and second ectopic; as conception took place after a long period of relative sterility, the mucosa of the generative tract had had sufficient time to regenerate.

Five, or 3·4 per cent. had repeated normal gestations during this interval, but miscarried each time; showing that while the tubes were not sufficiently diseased to interfere with the passage of the ovum, the uterus had only partly returned to the normal state, and therefore conception did not go on to term.

One hundred and thirty-one, or 89·7 per cent., had no intrauterine gestation between the first and second ectopic, thus proving conclusively a hopeless pathological state of the tubes.

His conclusions are that: (a) Pathological and clinical studies furnish sufficient data to justify the deduction that gonorrhœal salpingitis is the predominant cause of tubal pregnancy, and that the lesion most likely responsible is the destruction of the ciliated epithelium. (b) The ascending gonorrhœal infection affects the tubes in the majority of cases successively. It is therefore not unusual for the tube that is left

in situ, on account of its apparent normal condition, to undergo further pathological processes sufficient to furnish a predisposing factor for a recurrent tubal gestation. (c) Plastic surgery on the unimpregnated tube, such as liberating it from chronic adhesions or the opening of its fimbriated end by dilatation or resection, is, in the author's opinion, a meddlesome procedure, because it exposes the patient to the risk of subsequent gestation. (d) When operating for tubal pregnancy, if conditions allow, the unimpregnated tube should be carefully examined, and if in addition to a gonorrhœal history we find evidences of a recent or of a remote pelvic peritonitis, salpingectomy should invariably be done, thereby preventing recurrent ectopic gestation.

The paper is furnished with a valuable bibliography. S. J. A.

Pregnancy in Rudimentary Uterine Horn.

Beckmann (*Zeit. f. Geb. u. Gyn.*, Bd. lxviii, Heft 3) records a series of 50 cases of this condition reported in the literature of the last half dozen years. The total number of recorded cases is now about 145.

Beckmann's patient was a woman of 22 years, married for 18 months, and pregnant for the first time. A normal period in the beginning of February was followed by two and a half months' amenorrhœa, during which she had several attacks of very severe abdominal pain. An attack of 'typhus' then brought her into hospital, where she was found to be as much as five months pregnant. In the end of May she had a slight period, and from the following month her periods came on regularly and apparently normally. The repeated bleedings occurring while she understood herself to be pregnant, led her to consult more than one medical man. These at first thought the pregnancy normal, but after the third bleeding, they concluded that she was not pregnant but had a tumour which required removal. She thereupon came to the hospital in St. Petersburg.

Beckmann found the uterus not recognizably enlarged, to the left, and low in the pelvis. Connected with the right side of the uterus was a tumour about the size of the closed fist. After being kept under observation for several days, during which there were no symptoms except pain in the abdomen, she was operated upon. The abdomen was opened, and several slight adhesions separated. The tumour showed an old rupture opening, through which a small mummified fœtus could be seen. The sac was joined to the right side of the uterus by a short broad pedicle. The round ligaments and adnexa sprang from the outer side of the sac about its middle third. The connecting pedicle was seen to be attached to the fundus of the slightly enlarged uterus.

Microscopic examination showed that the pedicle contained a canal lined with a mucosa exactly similar to uterine mucosa. The rest of the stalk was of normal non-hypertrophied muscle, that around the mucous membrane having a somewhat circular arrangement. In the sac itself the lower part had a muscular structure with, however, no definite arrangement of the fibres. The upper part of the sac was made up of fibrous tissue, and from its relation to the point of rupture was obviously a secondary growth. Nowhere was there any trace of a mucous membrane lining the cavity of the rudimentary horn. Nor was there any trace of a decidua. There were however found on section a number of glands lined by a columnar celled epithelium, and in every way resembling uterine body glands. As a rule the connection between such a rudimentary horn and the body of the uterus is at the level of the os internum uteri. In this case it was to the fundus, or appeared to be. This was due, Beckmann believes, to the fact that the non-pregnant half of the uterus had involuted completely, while the pregnant horn with its contents had not been able to do so.

Although there was a canal lined with mucosa present in the connecting stalk, there was no communication between the cavities of the two horns of the uterus. This condition Werth has found to exist in 19% of his collected cases.

The fœtus was one of about 18 weeks' development. Probably rupture had occurred earlier than that, and the pregnancy had continued uninterrupted. Later the fœtus had perished, and thereafter the periods had begun again regularly. This resumption of regular periods from the non-pregnant uterus after the death of the fœtus has often been noticed in cases of this kind.

Beckmann's statistics agree with those of Werth that rupture is most common at the fourth or fifth month, rarely earlier or later. The most frequent cause of rupture appears to be just the growth of the ovum. Active penetration of the chorionic villi between the fibres of the thinned out muscle wall may also cause it.

Where the rudimentary horn consists of well developed muscle and mucous layers, pregnancy may go on without interruption to the later months. In Beckmann's series five cases went to the 7th month, four to the 8th, and eleven to term. Of these twenty only three ended in rupture. Further retention of the fœtus ends in mummification, suppuration, or calcification.

Pregnancy in a rudimentary horn is only occasionally diagnosed before operation. It is most likely to be mistaken for a tubal gestation, for pregnancy in a uterus bicornis, or for myoma, salpingo-öophoritis, or ovarian cyst with or without accompanying pregnancy. Much of the ease or difficulty of the diagnosis depends on the length and thickness and structure of the connecting stalk—whether it can be felt by the examining hand or not. Palpation of the round ligaments is also, of course, of great assistance.

The prognosis has of recent years become much better. Out of thirty-six cases two died from rupture, ten recovered after rupture, while twenty-four were operated upon before rupture—a mortality of five and a half per cent.

Beckmann's series is given in detail in tabular form, with the sources of the cases in the literature. R. W. J.

The Pelvis in Double Congenital Dislocation at the Hip-joints.

Delmas (*L'Obstétrique*, August, 1911), working with Vallois of Montpellier, makes a study of the obstetric anatomy of this condition and claims to have reached some new conclusions. He has studied and figures 17 pelves, all that he could find in French museums: the measurements are all his own and made on the same principle throughout for comparison, so he rejects the measurements of all others.

Apart from difficulty caused by its extreme anteversion this pelvis is not a dystocic one, for the only constant narrowing is above the brim of the true pelvis. The true brim tends to be wider than usual, and as we examine lower we find the pelvis becoming wider especially in the transverse measurements. There are rare exceptions due to a general atrophy of the whole pelvis and it becomes easy to diagnose a narrowing of the pelvic inlet by the narrow or even by the normal interischiatic diameter. The pubic arch is opened out.

The extreme anteversion causes the sacrum to be pushed up and back. The pressure of the dislocated femora high up and far back pushes in the iliac wings and this action is aided by the dragging of the iliac muscles. Thus the crests are straight and the diameters are about 22 cm. for the inter-cristal and 22·5 for the inter-spinous.

As mentioned above, the diameters of the outlet are increased, especially the inter-ischiatic. Delmas discusses the causation of this at length and finds that it becomes more marked in adult life, though the thinning of the pelvic bones is already in evidence in early life. The cavity too is enlarged, and at the brim the transverse and oblique diameters are increased. The thinning of the bones and vacuolation of the tissue results in the iliac wings being in part transparent and in the innominate line being poorly marked: this last is partly due to strength not being required to counteract the thrust of the femora. The theories and explanations of Treub and others are criticized. E. H. L. O.

Renal Decapsulation in Eclampsia.

HUGO EHRENFSET (*Surgery, Gynæcology, and Obstetrics*, September, 1911). In a series of experiments undertaken in order to determine whether or no decapsulation of the kidneys produces diuresis, the author has been unable to demonstrate any increased output of urine after this operation.

After reviewing the modern theories which attempt to explain the alleged diuretic effect of this operation, Ehrenfest points out that they may be classed under two main heads, namely: (1) those theories which are founded on a supposed stimulation of the renal plexuses by the operative manipulations, and (2) mechanical theories based on the assumption that the eclamptic anuria is secondary to an increased renal tension produced either by vascular engorgement or by œdema.

In the seven dogs, which formed the subjects of these experiments, the immediate effect of the operation was a temporary suppression of urine from the decapsulated kidney and a reflex diminution of secretion from the other kidney, lasting for about twenty-four hours. After this the secretion from both kidneys became approximately equal. Further, an artificial rise of blood-pressure produced an identical rise in the output from both kidneys; and it was also noted that massage of the kidney did not influence the amount of its secretion.

The author therefore concludes that renal decapsulation is useless in eclampsia, and that the diuresis which is claimed to have followed this operation would have occurred in any event. W. W. K.

Shock in Eclampsia.

HAROLD C. BAILEY (*Amer. Journ. of Obstetrics*, August, 1911) in a paper illustrated by seven charts, discusses certain observations made on eclamptic and pre-eclamptic cases, with special regard to the shock attendant upon delivery and the shock caused by drugs used for the rapid reduction of blood-pressure, and comes to the following conclusions.

1. Rapid emptying of the uterus in eclampsia frequently produces a decrease in blood-pressure amounting to 100 mm. of Hg., causing a condition of collapse or shock.

2. Veratrum viride given to its full physiological effect may cause a drop of 145 mm. of Hg. in the blood-pressure, producing shock.

3. The administration of veratrum viride combined with emptying the uterus in eclampsia may produce such profound shock that the patient cannot recover.

4. While it is probable that the high blood-pressure of eclampsia is one of Nature's protective mechanisms, still if it is deemed advisable to lower it, nitroglycerin and erythol tetranitrate should be used, for their action is on the peripheral vessels and not on the medullary centres.

5. One of the best means of temporarily lowering blood-pressure in antepartum or intrapartum eclampsia is the emptying of the uterus. S. J. A.

Korsakoff's Psychosis during Pregnancy.

M. ROULLIER (*Bulletin de la Société d'Obstétrique de Paris*, etc., No. 7, July, 1911). The author gives a full account of a case of this rare and interesting condition, occurring at the Clinique Tarnier under the care of M. Bar. The patient was a 4-para, aged 34. Her previous obstetric history was unimportant, except that each pregnancy had been complicated by severe vomiting. When admitted to the Clinique, February 12, 1911, during the second month of her pregnancy, she presented a very grave symptom-complex. She lay in a half-sitting attitude, with both lower limbs flexed, the flexion being most marked on the left side, where the heel almost

touched the buttock. Respiration was rapid, and although carried on apparently without effort, it was noted that a small degree of sub-clavicular retraction was present. Respiration was chiefly of the abdominal type and here the movements were most exaggerated. The aspect on the whole was apathetic, but a slight degree of exophthalmos produced a frightened expression and she appeared constantly to be on the brink of some catastrophe. Questions were answered deficiently and she almost always contented herself with remarks such as "I do not know," or "I cannot remember." Palpation of the abdomen always produced a marked rigidity accompanied by reflex movements of the arms.

Symptoms had been present for several weeks and the condition began shortly after the commencement of pregnancy, with pain in the legs and lumbar region. She found she could not walk as quickly as usual; and she became subject to periods of depression, frequently weeping without cause. Following a slight disagreement with her mother, she had a severe 'nerve storm' and lost the use of her lower extremities. Subsequent to this attack her memory became very deficient and she had no recollection of her transmission to the hospital or the events that were associated with it.

The day following her admission, lumbar puncture was performed and a well-marked intraspinal increase of tension noted. 20 ccm. of clear cerebro-spinal fluid were removed and the clinical condition temporarily improved. Questions were answered clearly and the patient spoke distinctly and well. The physical signs as regards the nervous system persisted however. Ankle-'drop' was complete on the left side and partial on the right. Sensibility was hyper-acute and painful spots were present in the femoral, crural, abdomino-genital, phrenic, sub-orbital and maxillary regions. Knee-jerks and Babinski's sign were absent. The pupils were equal and reacted normally. The patient could extend and flex the lower limbs as ordered from time to time; there was absence of sphincteric control.

During the second night after admission it was necessary to isolate the patient on account of motor and psychical disturbances, the latter taking the form of fright, and various hallucinations. Extensor paralysis of the feet followed, with some atrophy of the muscles and loss of tendon reflexes. Gradually, signs of a general polyneuritis developed, attacking the nerves of the thorax, abdomen, face, diaphragm, and affecting the functions of deglutition, respiration, and the vago-sympathetic system. Radiography showed that although the right half of the diaphragm was functionating normally the left side was immobile and took no part in the respiratory movements.

At this stage, when the prognosis appeared most grave, the psychical condition improved, and the mental confusion showed a tendency to disappear. The uterus now appeared to be about five months pregnant. Shortly afterwards, a distinct improvement was noted in the paralytic manifestations, followed by complete disappearance of the dyspnœa. Labour commenced on June 2, and after a practically painless first stage, the patient was easily delivered of a living male child, weighing 2,260 grammes. Delivery was natural and complete and requires no special comment. The puerperium also was uncomplicated. The child however did not thrive and died on the 8th day. The mother was in nowise disturbed at the loss of the child, and although she at times appeared drowsy, continued to make satisfactory progress as regards the paralytic and psychical disturbances. Electrical investigation showed that excitability to the Faradic current was slightly diminished in both facial nerves. In the case of the lower limbs, the diminution in excitability was most marked on the right side. With the galvanic current, the 'reaction of degeneration' was present to a slight degree over the anterior fasiculus of the left deltoid.

M. Roullier concludes a very thorough report of the case with references to similar records in the literature and appends a very useful bibliography. H. B. W.

Protection of the Perineum in Labour.

Brock (*Zentralblatt für Gynäkologie*, Nr. 32, 1911) condemns the usual method of supporting the perineum during the descent of the head. He states that when the forceps is used the posterior vaginal wall is often injured in two places, which are usually parallel to one another. This he believes is due to the continued pressure of the blades leading to an interference with the blood supply and the wall gives at the corresponding regions. He refers to the fact that at the place where a tear of the perineum begins the parts become pale, due to the tension of the stretched soft parts interfering with the vascular supply. He thinks that the usual manner of pressing the perineum against the advancing head is calculated to do more harm than good by exaggerating the risks referred to. The writer therefore practises a method less apt to induce this pernicious pressure. The supporting hand is held like a cup and only the finger-tips impede the advance of the hand, the hollowed palm bridging over the perineum. As the head descends the fingers are spread further and further apart.

J. Y.

Initiation and Stimulation of Labour with Pituitrin.

Stern (*Zentralblatt für Gynäkologie*, Nr. 31, 1911) reports an experience with pituitrin in the Frauenklinik of Breslau, which is of the greatest interest and value.

With regard to the use of pituitrin in stimulating a labour already in progress but which is tardy because of weakness of the pains, Stern's results are similar to those of Hofbauer, already published. There was in most cases a prompt increase in the pains and a shortening of the labour. In order to obviate the risk of relaxation of the uterus, which sometimes set in half to one hour after the birth of the placenta, the writer is now in the habit of giving a prophylactic dose (1 ccm) of secacornin. Since using this there has been no postpartum bleeding.

Stern reports three cases, in which the pituitrin was given for the purpose of starting labour. The first was a patient suffering from severe laryngeal and pulmonary tuberculosis. The treatment was carried out at the 36th week of pregnancy The first injection of ·6 gram. of pituitrin was followed after twenty minutes by pains, which gradually increased in intensity with an interval of 4—5 minutes, and lasted for about two hours. Next morning the os admitted two fingers. A repeated injection had similar results and the os expanded to the size of a three-mark piece. On the third morning, with an interval of two hours, two other injections were given, which shortly gave rise to rhythmic pains ending seven hours afterwards in the birth of a child, followed in a few minutes by a twin. The children were alive and healthy.

The second case was a patient suffering from severe nephritis, in whom at the 39th week there appeared symptoms suggestive of an impending eclampsia. Here a larger interval was allowed to elapse between the injections; in all, six of ·6 g. and one of ·1 g. were given in four days, at the end of which time a healthy living child was born. The mother's condition promptly and permanently improved.

In the third case the labour was induced at the 32nd week because of severe laryngeal and pulmonary tubercle. In this case two of the usual doses (·6 ccm.) failed completely. The injection of 1 ccm. given seven times was followed on each occasion by weak labour pains continuing rhythmically for 1—2 hours. An injection of 3 ccm. was likewise ineffective. By the fourth day the cervix admitted one finger and a dilating bag was inserted. The bag remained in 6½ hours without result, but four minutes after the injection of 1 ccm. of pituitrin strong and frequent pains set in, followed 11 hours after by the birth of the bag. The child, presenting by the breech, was then quickly delivered in a healthy condition.

Stern's results are important as indicating that the contractions induced by pituitrin are never of the tonic type. Even with powerful pains there is always a

distinct interval, and no unpleasant effect on the placental circulation. It may be used with advantage in patients with severe albuminuria.

Stern says that he has tried pituitrin without success in two cases for the induction of abortion in the early months. Though pains were induced they were not sufficiently strong. He concludes that there must be present a susceptibility of the uterine muscle, which appears towards the end of pregnancy. He has used it with success, however, in one patient with an incomplete abortion. J. Y.

Induction of Full-Term Labour for Unduly Large Fœtus.

Poux (*Comptes Rendus de la Soc. d'Obst. de Gyn. et de Ped.*, No. 4, vol. xiii, 1911, pp. 427–8) reports the case of a woman who had been pregnant once before, delivery being in his opinion undoubtedly prolonged to the eleventh month. On that occasion the child weighed over 12 lbs.; the basiotribe had to be employed, and the extraction of the shoulders proved very difficult. The patient went through her second pregnancy to term, and as the child was clearly large, Poux thought it advisable to induce labour. Pains set in, and at the end of fourteen hours a child weighing nearly 9½ lbs. was delivered without instrumental or manual aid. Poux insists that his practice in this case was correct. In prolonged pregnancy the fœtus is often too big to allow of safe delivery, yet some cases do well. J. B.

Cæsarean Section for Undue Size of the Fœtus.

Lepage (*Soc. Obst. Gyn. et Paed. de Paris*, 1911, vol. xiii, No. 2, p. 95). The author operated on a woman who at a previous labour had suffered severely from an unduly bulky fœtus and shock. Labour setting in he performed Cæsarean section at once and extracted an infant weighing nearly 11½ lbs. Shortly after birth the child suffered from a raised temperature and ocular symptoms ascribed to intra-uterine troubles due to its large size. In the discussion which followed, Rudaux stated that he had induced premature labour at the eighth month and delivered a dead fœtus 11 lb. in weight. Should the mother become pregnant again, he would advise Cæsarean section. That operation seems justifiable ,even when the pelvis was normal. Pinard could not feel so sure about such a doctrine; the operation should not be undertaken until the usual measures had failed in previous labours. Slight pelvic contraction of course altered the nature of the case, and he admitted that even when it was not present Cæsarean section was demanded in any particular case where at the onset of labour delivery through the vagina seemed impracticable.

J. B.

Shock Associated with the Delivery of Large Children.

Wallich (*Soc. Obst. Gyn. et Paed. de Paris*, 1911, vol. xiii, No. 2, p. 101) read a paper on the various phenomena of shock consecutive to the delivery of big children. He referred to pallor, giddiness, and a condition akin to syncope, sometimes called puerperal shock. This shock was certainly consecutive to the delivery of the child, but in reality when such a case was examined, a laceration could be detected or else rapid dilatation had been practised. The best remedies were judicious administration of alcohol, serum injections, and uterine massage. J. B.

Hebosteotomy.

H. van de Velde (*L'Obstétrique*, October, 1911) gives his ten years' experience of this operation, which he has performed 14 times. One mother died 21 days later from tuberculosis of the kidneys, from which she had previously suffered. Van de Velde is satisfied she did not die from the operation: unfortunately he treated the labour expectantly and the fœtus died in the birth. All his other cases were

successful, though one suffered for a time from urinary fistula, which was cured by operation.

He gives various indications and contraindications. Previous infection excludes the operation and pelvis below 8 cm. of true conjugate, though with a very small fœtus the limit may be brought down to 9½ cm. (presumably a misprint for 7½).

His results, as those of others, are quoted to show the proportion of cases showing permanent enlargement of the pelvis, of women subsequently delivered spontaneously and soon. Most of the accidents associated with this operation can be avoided by care: the greatest danger, that of septic infection of the bony wound, is to be obviated by keeping the section of bone quite clear of the vagina and vulva, which can never be surgically sterilized. By having this operation to fall back on the accoucheur can often afford to wait and avoid premature labours and craniotomies on the living child.

E. H. L. O.

Disseminated Sclerosis: Forceps Delivery.

Lacasse, Pottet, and Ecalle (*Comptes Rendus de la Soc. d'Obstét de Gyn. et de Ped.*, No. 4, vol. xiii, 1911) report the complete clinical history of pregnancy in which the patient was subject to disseminated sclerosis. She was aged 24. In August, 1909, she aborted at the third month. Three months later symptoms of this disease were first noticed, and she was placed in Déjerine's ward in August, 1910. She could then no longer walk. Menstruation ceased after July 22, 1910. At the end of March, 1911, she was transferred from the Salpêtriere to the Beaudelocque clinic under Pinard. The tremors were very marked, especially in the left superior and inferior extremities. Nystagmus was present, and the patient complained of distressing vertigo. She could not rise from her bed unaided. The fœtal head presented in the first position when labour set in at 9 p.m., on April 21. Contractions recurred at long intervals, the os was completely dilated by 6-45 a.m. At 10 a.m. there was a marked caput succedaneum, and the labour made no progress, contractions recurred at intervals of twenty minutes. As the membranes had ruptured an hour after the onset of labour, and rotation had not taken place twelve hours later, the forceps was applied. Neither the uterine contractions nor the application of the forceps caused appreciable pain. The child weighed 7¾ lbs.; it was living when the report was published. The placenta was removed by expression half-an-hour later; it weighed 1¼ lb.; there was no postpartum hæmorrhage. The puerperium was normal, but the sclerosis showed no sign of improvement. There was no evidence of syphilis.

J. B.

Puerperal Infection with Lœffler's Bacillus.

Bourret, Lyons (*L'Obstétrique*, October, 1911), describes this condition with details of 42 cases including one observed by himself in Fabre's clinique. Thirty-two of these cases occurred in an epidemic in Paris, in 1890 in the clinique Baudelocque, of which only two were examined bacteriologically.

Clinically the cases are distinguished by the greater density of the membranes from those of pseudo-membranous infection caused by other organisms. The diagnosis is however often difficult and must be confirmed by suitable cultures and identification of the bacillus. Among characteristic signs is the enlargement of the lymphatic glands: paralysis of the sphincters is not uncommon, while there is much general prostration and somnolence. The author thinks the prognosis must be very guarded though only one death is recorded in the 42 cases. Antidiphtheritic serum must be used freely but the probability of a mixed infection must be kept in mind.

E. H. L. O.

The Treatment of Stillborn Infants.

SCHULTZE (*Zeitschr. f. Geb. u. Gyn.*, Bd. lxviii, Heft 3) replies in detail to the criticism which Ahlfeld recently directed against the method of resuscitation associated with his name. Schultze reiterates that his method is not so easy as it looks, and is very frequently improperly carried out. He gives full details as to the correct method. The child should not be wrapped up in a warm towel, as Ahlfeld recommends, but held with a small dry towel, sufficient to prevent the child's body from slipping out of the fingers, but not large enough to interfere with the close observation of the child.

In regard to his not employing the catheter to clear out mucus from the trachea, Schultze declares that the expiratory movements in his swinging method are quite as potent in expelling any obstructive mucus. If necessary it may be supplemented by the finger passed to the back of the child's tongue.

The cooling of the surface of the body induced by the swinging is, in slighter cases at any rate, highly beneficial. Such cooling is one of the natural stimulants to breathing, and may often be aided by dashing a little cold water over the child's chest.

R. W .J.

The Resuscitation of Stillborn Infants.

OLSHAUSEN (*Zeitschr. f. Geb. u. Gyn.*, Bd. lxviii, Heft 3) holds that in the deeper forms of asphyxia Schultze's swinging, properly carried out, is by far the best method of treatment. He makes some exceptions of course, and strongly recommends other forms of treatment as well. He believes that swinging should not be begun at once. The child should first be rapidly washed in warm water and then if respiratory efforts are not observed, the throat should be cleared of mucus by aspiration through a catheter. Swinging should then be begun, and if after 8—10 swings there is no spontaneous breathing, recourse should again be had to the warm bath, and thorough rubbing of the back.

In regard to the duration of the swinging, Olshausen believes that by prolonged swinging much of the benefit may be lost. If 10—20 swings are not successful, the method is not likely to be successful, and one should turn to friction on the back, heart massage, short cold douches on the precordial region, alternately with immersions in a hot bath.

Where after a brief trial of swinging, respiration is not started, and the pulse rate falls and the strength of the pulse diminishes, further swinging is not only useless but actually harmful. The direct insufflation of air through a catheter should then be begun.

The theoretical objections to this are that the air is blown in under an excessive pressure, and that some of the acini of the lungs are ruptured thereby, and some local emphysema induced. What, asks Olshausen, do such purely theoretical objections signify in the face of successful results? One can actually see the lungs expanding, and feel a pulse that has sunk to 60 or even 40 beats per minute increase after half-a-dozen insufflations to 120, while the strength of the wave grows proportionately.

Olshausen believes that the fact that impure air, rich in carbonic acid and poor in oxygen, is breathed into the child's lungs, is not of much importance. The value of the method lies in the forcible opening up of the atelectatic lungs by the air under pressure, and thereafter the atmospheric air can enter spontaneously.

The livid form of asphyxia is not devoid of danger, although less serious. Most cases respond readily to simple treatment. Where the colour of the infant's face and body at once suggests that one has to deal with a stoppage of the circulation, particularly a damming up of the blood in the inferior vena cava and the right heart, this at once suggests the proper treatment—to cut the cord and allow a halt

to one tablespoonful of blood to escape. Olshausen does not regard the pallid and the livid forms as merely different gradations of the same condition. Above everything he recommends careful observation, and an immediate grasp of the situation. The over-zealous precipitancy, which employs swinging, cold douches ,warm baths, and every conceivable form of stimulation, all within a few minutes, is to be avoided above all. Further, a newly-born infant is not to be handled as if it were a grown man! Such treatment may only too easily result in serious and even fatal injuries. R. W. J.

Results and Outlook of the Treatment of Hereditary Syphilis.

Baisch (*Monatssch. f. Geb. u. Gyn.*, Bd. xxxiv, Heft 3, S. 273). With the growth of knowledge on this subject during the past few years, one is encouraged to look for a successful campaign against sterility and infertility due to syphilis, and against hereditary lues.

For a long time a difficulty was present which has now been swept away, namely, the want of exact knowledge as to the route by which the infection was carried from the parents to the child, and the uncertainty whether treatment was to be directed in especial manner towards the father or the mother. On the ground that the infection is in by far the largest number of cases due to the influence of the father, the recommendation was to treat him in the first instance, in as much as the procreation of macerated or congenitally syphilitic children was due to his syphilitic sperma.

If clinical signs are present in both parents the indications for treatment are manifest, but such cases are exceptional, and usually the conditions present are as follows. A mother who appears entirely healthy and who shows no sign whatever of lues after the most searching examination, gives birth to a macerated fœtus or a living child with pemphigus, psoriasis, or some similar affection. The causation is made clear only after a bacteriological examination for spirochætæ, which are found in the adrenals of the macerated fœtus, or in the exanthematous eruption of the infant, after which a strict cross-examination of the father brings to light a recently or long-previously acquired lues. As substantiating this it may be noted that in the Munich Frauenklinik in the last two years and a half, such was the state of affairs in 146 out of 190 mothers with specific offspring (Baisch and Weber).

The observations of Wassenmann reaction as applied to this matter by Opitz, Bauer, etc., etc., and the search for the spirochætæ (Schaudinn, Bab, etc.) first tended to explain the phenomena, and as the result it is almost certainly established as an axiom, that every mother who gives birth to a luetic child is herself infected, however healthy and free from symptoms she may appear, and further, that the infection of the child occurs through the invasion of the organism through the placenta, from mother to child. A healthy mother cannot produce a luetic infant. Hence it follows as a first principle in the treatment of hereditary lues that it is of no avail to attack the disease in the father alone, but that essentially and principally in all cases, treatment must be directed towards the mother, which furthermore, makes the matter easier seeing that we can always get at the mother, but seldom have opportunity to see or to treat the father.

The conditions are similar in children of luetic parents, which are born apparently healthy. A considerable number of such show a positive Wassermann reaction. It is still a matter for discussion whether it may not occasionally occur that children born of a luetic mother may be not only clinically healthy but even bacteriologically so. If lues has been contracted in the later months of pregnancy, there is no doubt that the child may escape, but whether this applies to children of a mother long-previously infected, demands further examination; judging from analogy it is quite probable. In any case one can formulate a second axion—Every child born of luetic

or suspicious parentage must be serologically examined—if the reaction is positive then in spite of apparent clinical healthiness, sooner or later anti-syphilitic treatment is to be adopted. If the reaction be negative the child must be kept for a period under medical observation, and examined from time to time clinically and serologically; seeing that the reaction often appears first after weeks or months in hereditary cases, and be it noted that a positive reaction may be got where there are no clinical signs of lues.

Thus far one had got in first principles when Ehrlich's discovery appeared. Prior thereto treatment of hereditary lues by mercury and potassium iodide was practically valueless, although Finger, Fournier, etc., etc., reported isolated successes. These successes however were they to be examined by present-day serologicial methods would scarcely stand the test, and in any case are so few in number as compared with the frequency of hereditary lues, and of still births due thereto that they are infinitesimal. Mewis showed from statistics obtained in the Brunswick clinic that out of 200 luetic mothers 59 per cent. who had been treated and 60 per cent. who had not been treated gave birth to syphilitic children, so that the influence of treatment was negligible.

Salvarsan, as used by the author, seems more active in its effect on the spirochætæ than mercury, is simpler in application and rapid in result. He uses it intravenously in doses of 0·4 to 0·6 gramme, which is rather more than usually is recommended, the average dose being 0·5 gramme.

With regard to the results one must determine separately, first the influence on the Wassermann reaction, and secondly the clinical effect on the procreation of living and healthy children.

Out of 35 patients treated intravenously the Wassermann reaction was never found negative. In one case where it was negative at first, one month after injection it was found positive, which has been previously observed by others. These 35 positive reactions stand in contrast to the results of Lange of Kied, which seem to be exceptional. From his experience Baisch deduces that it is not possible so to influence old latent lues by one or two injections of 0·5 gr. salvarsan as to produce a steady negative reaction, but this may be attained by three or more injections. It is possible that for actual cure it is not absolutely necessary to produce a change from positive to negative reaction, since we are not yet aware of the precise substances which arrest hæmolysis and thus produce the positive result. A practical test is the birth of healthy children, or contrariwise the appearance of recurrent symptoms.

Sometimes a thorough mercurial treatment during pregnancy may have a favourable influence on the fœtus, as in three cases of Baisch where living children were born, of whom one showed psoriasis plantaris et palmaris; but in nineteen other cases similarly treated before and during pregnancy, though less thoroughly, macerated fœtuses were born. In three cases treated by salvarsan, details of which he gives, the results were good—the treatment was well borne, and when combined with a mercurial treatment it seems to hinder the infection of the fœtus. In one case however the serum of the infant showed a positive Wassermann reaction.

He has seen no results from the indirect treatment of the leutic offspring by injection of salvarsan in the mother, and in other quarters it has been shown that after an apparent improvement, in the course of the next months luetic manifestations occurred in the child.

He is of the opinion that the puerperium is a suitable time to begin anti-syphilitic treatment for the impression on the parents by the birth of a macerated fœtus is telling, and influences a mother who is free of symptoms and apparently healthy to undergo energetic treatment, whereas some weeks later she will be unwilling to undergo this as she feels quite well. Admitting that the greater part of the patients

will receive only one injection and pass out of the doctor's observation thereafter, still much good may be thus accomplished in weakening the force of the virus.

The author appends a long list of references to the literature of the subject.

W. R. P.

Treatment of Inherited Syphilis in Suckling by Salvarsan Given to Mother.

ASCHEIM (*Zentralblatt für Gynäkologie*, Nr. 31, 1911) refers to a case reported by Taege in which it was believed that the administration of salvarsan to the nursing mother had been successful in curing the child. Ascheim reports the case of a woman who, after having two healthy children, was infected by her husband and gave birth to a syphilitic premature child. The administration of salvarsan to the mother, who gave a positive Wassermann reaction, was quickly followed by a disappearance of the skin lesions in the child. As in Taege's case, there was no arsenic in the milk, and the benefit was attributed to the transmission of antitoxins. About six weeks afterwards, however, the skin lesions reappeared as badly as ever and the child's health became seriously impaired. The writer records this case as a warning against the possibility of being deceived by the temporary improvement in the child's state.

J. Y.

Hæmorrhages of the New-born Infant.

BONNAIRE and DURANTE (*L'Obstétrique*, October, 1911) write on the pathogenesis of hæmorrhage of the new-born, especially hæmorrhages from the liver not of traumatic origin. Deep or superficial ecchymoses are not uncommon, and small effusions are often found casually in the liver; but fatal bleeding is rare. The authors saw four fatal cases within a few days. In the first the mother was eclamptic and there may have been some rough handling in resuscitating the apparently still-born fœtus; but the lesion was obviously several days old and at the utmost any violence during or after labour could have determined no more than a rupture of a pre-existing hæmatoma. The second and third children were premature and the fourth was born of a mother suffering from gastric cancer.

The following features were common to all four cases, viz., a small celled infiltration of Glisson's capsule, and of the parenchyma; the hepatic cells were fatty; the portal vascular system had the vessel walls infiltrated and degenerated as were also the general capillaries. The lesion began by the formation of a sub-capsular hæmatoma and the authors believe that the source of the hæmorrhage is to be found in an extensive flooding from the capillaries and not from one large artery.

The blood of the new-born infant is in a peculiar condition, especially in the liver: this organ during fœtal life receives almost pure arterial blood from the placenta, while postpartum it receives a large proportion of venous blood. The blood is less coagulable and attention has been drawn to the disproportionate ratio of unsuccessful vaccination, 50% in the first week of life, as against 25% after this period. Bacteriological cultures were for various reasons omitted, but in one case a diplococcus was found in the tissues bordering on the hæmorrhagic areas, staining with gram and non-capsulated.

This condition of the liver is ascribed to a gradual intoxication from the mother causing the infiltration, such as from syphilis, etc., accompanied by diminished coagulability of the blood. Supervening on this is an acute infection or intoxication at birth leading to vascular ruptures. Such ruptures in a child previously healthy would lead to trifling ecchymoses but in an enfeebled one may lead to flooding of the peritoneum and to death. Obstetrical traumatisms are not the cause: cephalhæmatoma appears away from the point of pressure on the skull, and the authors have seen marked ecchymoses of unknown cause, e.g., a face with bruise marks such as occur

in face presentations though the vertex had presented. Lately there was an epidemic in the Maternité of a sort of hæmophilic state, which was associated with an outbreak in Paris of a kind of influenzal pulmonary epidemic. The association is put forward by the authors as a mere speculation and starting point for further investigations.

E. H. L. O.

Theses Reviewed in L'Obstetrique, August, 1911.

Thèses de Lille, 1911.

Retained placenta after abortion. Lamoureux (No. 22) considers treatment purely on its historical side.

Poisoning of sucklings and infants with poppy-heads. Evrard (No. 23) describes with report of autopsy, etc., this form of "soother" poisoning.

Blood letting in eclampsia. Druesne (No. 24) recommends this along with other treatment: seven cases detailed.

Thèses de Montpellier, 1911.

Coccy-perineal route: technique. Fiolle.

Chinee-Annamite medicine. Li Quang Trinh, introduces an obstetric chapter showing a high degree of proficiency in Tonkin: in the South the practice is in the hands of ignorant and superstitious midwives, e.g., injections of infants' urine in dystocia.

Pelvic deformity from infantile paralysis. Gaujoux collects 22 labours in 15 women (of whom 10 first published).

Conservative Cæsarean section. Parrel reviews various methods.

Chronic salpingo-ovaritis. Remuzat studies 194 cases: "important."

Refuges for pregnant women. Mme. Demelle recommends this for poor women during last two months of pregnancy.

REPORTS OF SOCIETIES.

ROYAL SOCIETY OF MEDICINE.

Obstetrical and Gynæcological Section

Meeting held at 11, Chandos Street, on Thursday, October 5th, 1911.

The President, Dr. Amand Routh, in the Chair.

The following specimens were shown:—

Dr. Maxwell.—Unruptured tubal gestation at the fourth month.

Mr. Malcolm.—Large fibro-cystic tumour of the perinæum.

Dr. McCann.—1. Soft fibroma of the pelvic connective tissue, forming a large perineal tumour. 2. Hæmatometra and hæmatosalpinx, associated with absence of vagina.

INAUGURAL ADDRESS BY THE PRESIDENT.

Dr. Amand Routh then gave his inaugural address as President, which is reported in full in this number of the Journal.

Sir Francis Champneys proposed and Dr. Herman seconded a vote of thanks to the Chairman for his address.